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Editorial

"LONG COVID" – A PHYSICIAN'S CHALLENGE

Namita Mohapatra[1], Santosh Kumar Swain[2]

It has been nearly threeyears, India has been struggling to manage the recurrent waves of SARS coronavirus-2 disease 2019 (COVID-19) along with the rest of the world. While acute management of the crisis is a continuous challenge to the health system, the growing number of patients presenting with various health problems after their recovery from COVID-19 is also a great concern.Reports show that up to 70% of COVID-19 survivors may experience long-term medical complications, that can last weeks to months, severely reducing the quality of life, long after patients become virus-free (1,2). Such symptoms are commonly referred to by several terms including "post-COVID-19 condition", "Post COVID syndrome" or "long COVID".Although there are no widely accepted definitions of post-COVID-19 condition, a generally agreed definition proposed by the Centres for Disease Control and Prevention (CDC) and accepted by WHO states that "this condition encompasses a broad range of symptoms (physical and mental) that develop during or after COVID19, continue for more than 4 weeks, and are not explained by an alternative diagnosis" (3). Risk factors commonly associated with development of long COVID are older age, female gender, severe illness, ICU admission and pre-existing conditions like asthma, diabetes, obesity or poor general health (4).

The exact pathophysiology of this heterogeneous condition is not established yet.The multiple possible etiologies can be the sequelae of organ damage, persistence of chronic inflammation or immune response, auto antibody generation, sequelae of critical illness, post-intensive care syndrome, complications related to corona infection or to comorbidities, nonspecific effect of hospitalization or adverse effects of medications used (4). Persistence of infection can also occur rarely due to persistent viremia in people with altered immunity, re-infection or relapse (5,6). Deconditioning, post-traumatic stress, social and financial impact of COVID-19 also contributes to post COVID issues.

The prevalence of residual symptoms after COVID 19 is about 87% in hospitalized patients and around 35% in mildly affected patients (7,8). The pattern of onset of long COVID is also heterogeneous. The following patterns may be observed: (i) persistent symptoms and conditions that begin at the time of acute COVID-19 illness; (ii) new-onset late sequelae following asymptomatic disease or a period of acute symptom relief or remission; or (iii) evolution of symptoms and conditions that include some persistent symptoms (e.g., shortness of breath) with the addition of new symptoms or conditions over time (e.g., cognitive difficulties) (3). The common features of post-COVID-19 conditions reported so farare fatigue, worsened quality of life, dyspnoea, joint pain, myalgia, chest pain, cough, headache, palpitations, myalgia, diarrhoea, skin rashes, 'pins and needles' sensation, inability to do routine daily activities, anxiety, depression and posttraumatic stress, olfactory and gustatory dysfunction (7,9).

In general, current clinical practice is to adopt a symptom-based approach in managing long COVID. Evidence from patient experience showed that many people feel their symptoms are not taken seriously. There are also people who don't realize that their symptoms are connected with COVID-19, so taking time to listen, showing empathy, taking a careful history and making an assessment are important. Comprehensive clinical history should Include history of suspected or confirmed acute COVID-19, the nature and severity of previous

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and current symptoms, timing and duration of symptoms since the start of acute infection and history of other conditions. Thorough physical examination and objective functional assessment is necessary.

There is no definite laboratory test that can distinguish long COVID conditions from other etiologies, in part due to the heterogeneity of post-COVID conditions. Majority of the patients do not require extensive evaluation. Some systemic inflammatory markers are proposed as biomarkers for long COVID. D-dimer, c-reactive protein (CRP), interleukin-6 (IL-6), procalcitonin and neutrophil count are found to be associated with persistent symptoms of long-COVID. Neurodegenerative indicators including amyloid beta, neurofilament light, neurogranin, total tau, and p-T181-tau are elevated in long COVID (10). To this end, it would be very helpful for long COVID diagnosis if a set of biostable biomarkers are available independent of symptoms. A recent study found that the immunoglobin profile of IgM and IgG3 is linked with increasing risk for developing long COVID (11).

A multidisciplinary approach is required for management of long COVID, including evaluation, symptomatic treatment, treatment of underlying problems, physiotherapy, occupational therapy and psychological support. Post COVID conditions can be divided into different categories depending upon the predominant residual symptoms as post COVID cardiorespiratory syndrome, post COVID fatigue syndrome and post COVID neuro-psychiatric syndrome (10). The following general principles should be kept in mind during treating these patients: 1] management will usually be pragmatic and symptomatic to optimize function and quality of life, 2] avoidance of over investigation, 3] exclude serious complications and find out possible alternative causes of ongoing symptoms, 4] investigate new or worsening symptoms that could indicate delayed sequelae, cardiac complications or pneumonia, 5] consider chest Xray at 12 weeks for those who have had a significant respiratory illness, 6] where possible, optimize the management of chronic conditions, 7] collaborate with the patient to develop an individualized management plan, 8] development of multidisciplinary models of care guided byappropriate team (3,12).

Dietary supplements, such as vitamins and minerals, which contain anti-inflammatory and anti-oxidative components,have become potential treatments for long COVID, as they may combat the chronic inflammation that provokes multi-organ damage and exacerbates pre-existing conditions. Other potential drugs that are being investigated for treatment of long COVID are Nicotinamide ribose (a form of vitamin B3), Essential fatty acids, such as omega-3 (Eicosatetraenoic acid - EPA + docosahexaenoic acid - DHA), Coenzyme Q10 (CoQ10) and dietary pro-biotics and pre-biotics.Vaccination is strongly associated with the decrease of long COVID related symptoms.Moreover, a well-balanced diet, physical activity, sleeping habits, all have primordial function in shaping innate immune responses to external stimuli, may retard the progression of Long COVID (10).

Long COVID is continuing to be a major health issue worldwide. Multiple variants of the virushave evolved and have gained increased abilities to infect patients or evade the protection by vaccination.Human species will have to co-exist with the virus for some years to come. As the disease is new, the knowledge regarding long term effects and treatment options is still evolving.As physicians we need to understand the diseasethoroughly,take proper management options and also raise public awareness of its risk factors. Training of the doctors, nurses and other medical staff regarding the management of long COVID should be arranged by the appropriate authorities. National guidance for the treatment of the long COVID is also necessary for the consistency and uniformity of treatment nationwide, this will reduce unnecessary treatments. We must also develop research protocols to derive data of post-COVID-19 conditions of our own population. Physicians should always be keen and cautious for appropriate diagnosis and management of long covid, a challenge for which we all should remain prepared.

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Original Article

CLINICO-MICROBIOLOGICAL PROFILE AND CULTURE SENSITIVITY PATTERN OF MICRO-ORGANISMS ISOLATED FROM DIABETIC FOOT ULCERS: STUDY FROM A TERTIARY CARE CENTRE

A Gouri Shankar Rao[1], AshwathyAshokan Nair[2], Pradip Kumar Behera[3], Krishna Padaribinda Tripathy[4]

Abstract

Objective : Worldwide, diabetic foot ulcers are a major medical, social and economic problem and are the leading cause of hospitalization for patients with diabetes. The organisms associated with the ulcers vary from different geographical regions and initiation of empiric antibiotics depends on the prevalence of the local pathogens and their sensitivity pattern.With this background the present study was carried out to evaluate the bacterial diversity and their culture sensitivity patterns in diabetic foot ulcers.

Material and Methods:Medical records of 65 cases of diabetes mellitus with diabetic foot ulcer admitted to Pradyumna Bal Memorial hospital during the period from January 2021 to December 2022 were retrieved from the Medical Records Department. Demographic, clinical profile of patients, microbiological profile with antibiotic sensitivity pattern of samples collected from were analysed.

Results:Out of 65 cases (n=65), 54 (83.07%) were male and 11 (16.92%) were female. Age range of the patients was from 39 years to 80 years with mean age of 59 +/-9.65years. The mean duration of diabetes was 9.4 +/-5.7 years and 52.4% had diabetes for more than 10 years. Hypertension was present in 84.5% of the cases. Nearly 62.5% had lesions for 3 months before presenting to the hospital. Peripheral neuropathy was present in all the cases. 60% cases were surgically treated with debridement. Osteomyelitis was present in 44.6% cases. Out of 65 cases, 64 were culture positive. Pseudomonas aeruginosa was the leading pathogen in 18.46% cases (n=12), Staphylococcus aureus, E.coli, Acinetobacter baumannii and Klebsiellapneumoniae were isolated in 12.38% cases each followed by Burkholderiacepacia which constituted 10% of all cases. Multiple organisms were isolated in 11 cases (16.92%).

Conclusion: Pseudomonas aeruginosa followed by Staphylococcus aureus and E.coli, were the most common organisms infecting diabetic foot ulcers. Burkholderiacepacia, which was earlier an uncommon infection in diabetic foot ulcer, was found in significant (10%) number of cases. This may be due to improper waste management and change in environmental conditions.

Key Words:Diabetic foot ulcer; culture sensitivity pattern; Burkholderiacepacia, Lower limb amputations

1. Introduction:

Diabetes mellitus (DM) is a serious and complex illness that affects almost every vital organ in the body and has emerged as a major non-communicable health problem all over the world. There are approximately 415 million people worldwide suffering from diabetes. It has been estimated that this number will increase to 642 million by 2040.[1] The estimates in 2019 showed that 77 million individuals had diabetes in India, which is expected to rise to over 134 million by 2045. Approximately 57% of these individuals remain undiagnosed[2].

Foot infections are among the most common bacterial infections encountered in patients with diabetes mellitus[3] These infections and their sequelae are also

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the mostcommon cause for hospital admissions among diabetic patients [4]. The least expected outcome of diabetic foot infection is foot amputation. Diabetes is the leading cause of non-traumatic lower extremity amputations and accounts for more than 50% of amputations [5, 6]. More than 85% of lower extremity amputations in patients with diabetes are preceded by foot ulcers [7]. More thanhalf of patients who have undergone lower extremity amputation will have a contralateral amputation within 5 years and half of those who undergo amputation will die within 3 years [5]. The longer duration of hospitalization for diabetic patients is thought to be due to the increasing rates of diabetic foot infections. The presence of diabetic foot infections caused by the multi-drug-resistant pathogen is also contributing to the morbidity and mortality of the patients [8].Early recognition of lesions and prompt initiation of appropriate antimicrobial therapy are essential for controlling the infection and preventing morbidity and improve the quality of life. Antibiotic susceptibility test is pre-requisite for the management of infections which can help to make better therapeutic choices.

In this background the present study was taken up as a retrospective study with an objective of assessing the various microbiological pathogens involved in diabetic foot ulcers and their antibiotic sensitivity pattern so that appropriate antibiotic decisions can be taken while dealing with diabetic foot infections.

Materials and Methods:

2.1 Design and study population

This is a retrospective cross-sectional study carried out KIMS and Pradyumna Bal Memorial hospital, Bhubaneswar, Odisha. Using consecutive sampling method, all patients who met the inclusion criteria were included in the study sample. The inclusion criteria were any patients who were hospitalized at internal medicine and General surgery department diagnosed with Diabetic foot infectionsduring the period from January 2021 to December 2022 with culture positivity for samples taken from the ulcer . The exclusion criteria were all outpatients and patients with incomplete information of medical records.

2.2 Methodology:

We collected the demographic and clinical data from the patients' medical records. Demographic data collected included age, gender, length of stay in the hospital, and duration of diabetes. Laboratory parameters collected when the patients admitted to the hospital included hemoglobin, leukocytes, and HbA1c as a marker of glycemic control. The microorganisms isolated and their sensitivity pattern were collected and analysed.

2.3 Data analysis

Continuous variables were reported as mean ± SD and categorical variables asproportions. Distribution of microorganisms isolated on pus culture were reported as frequency (percentage).

2. Results:

A total of 65 cases were included for analysis. Most of the cases were males (83.07%) with females being only 16.92%.The age range subjects were from 39 years to 80 years with mean age of 59 +/-9.65years, the most common age group of patients was 56-65 years.

Table 1: Demographic data representing characteristics like sex, age, foot ulcer location, duration of diabetes, Laboratory results.

Characteristics	**n = 65**
SEX (%):- Male:Female: (16.92%)	54 (83.67 %)11
Mean Age (years)	59 +/-9.65
Duration of Hospital stay (%): <10 days:>10 days:	17 (26.15%)48 (73.84%)
Foot ulcer location (%):- Right foot: Left foot:	45 (69.23%)20 (30.76%)
Osteomyelitis	29 (44.6%)
Mean duration of diabetes (years)	9.4 +/- 5.7
Laboratory results: Hb, mean +/- SD (gm/dl): WBC mean +/- SD (10^9/L):	9.29 +/- 2.2719147 +/- 7990
Poor glycaemic control (HbA_1C >8%)	43 (66.15%)

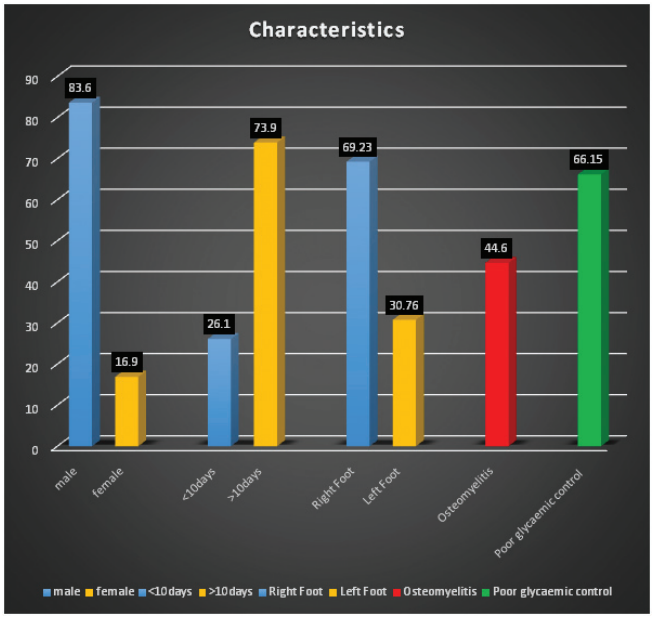

Figure 1: Graphical representation of characteristics

A total of 13 pathogens were identified from microorganisms isolated on pus culture. The most common infecting microorganism isolated on pus culture was *Pseudomonas aeruginosa* (18.46%) followed by *Staphylococcus aureus, E.coli, Acinetobacter baumannii and Klebsiella pneumoniae* were isolated in 12.3 % cases each followed by *Burkholderiacepacia* which constituted 10% of all cases. Multiple organisms were isolated in 11 cases (16.92%).

Table 2: Distribution of microorganisms isolated from pus culture in diabetic foot infection patients.

Microorganisms	Frequency	%
Pseudomonas aeruginosa	12	18.46
Staphylococcus aureus	8	12.3
E. coli	8	12.3
Klebsiella pneumoniae	8	12.3
Acinetobacter baumannii	8	12.3
Burkholderiacepacia	7	10.76
Enterococcus	6	9.2
Enterobacter aerogenes	2	3.07
Proteus mirabilis	2	3.07
Providencia	1	2.04
Citrobacter	1	2.04
Morganellamorganii	1	2.04

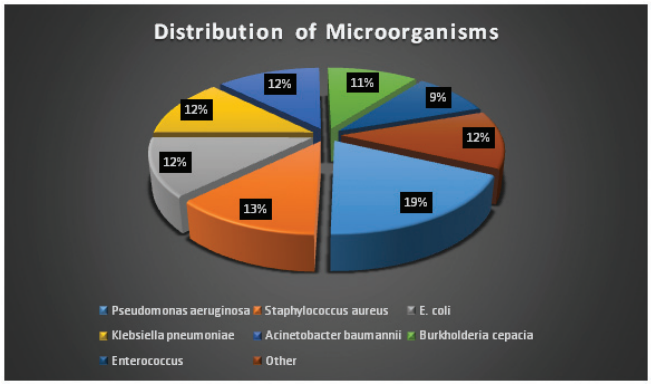

Figure 2: Graphical representation of Distribution of microorganisms

Out of 65 cases, 64 were culture positive and antibiograms were tabulated based on the antibiotic susceptibility pattern (Table 3; 4& 5)

Table 3: Antibiogram of Gram positive bacteria.

Antibiotics	S. aureus (n=8)		Enterococcus (n=6)		Total (n=14)	
	S (%)	R (%)	S (%)	R (%)	S (%)	R (%)
Amikacin	7(88%)	1(12%)	6 (100%)	0 (0%)	13 (92%)	1 (8%)
Erythromycin	6(75%)	2(25%)	5 (84%)	1 (16%)	11 (78%)	3 (22%)
Ciprofloxacin	5(63%)	3(37%)	5 (84%)	1 (16%)	10 (71%)	4 (29%)
Gentamycin	5(63%)	3(37%)	5 (84%)	1 (16%)	10 (71%)	4 (29%)
Levofloxacin	2(25%)	6(75%)	5 (84%)	1 (16%)	7 (50%)	7 (50%)
Oxacillin	6(75%)	2(25%)	6 (100%)	0 (0%)	12 (85%)	2 (15%)
Vancomycin	8(100%)	0(0%)	6 (100%)	0 (0%)	14 (100%)	0 (0%)

S = Sensitive; R = Resistance; n = number of isolates

Table 4: Antibiogram of Gram negative bacteria.

Antibiotics	Pseudomonas (n=12)		Klebsiella (n=8)		E. coli (n=8)		Acinetobacter (n=8)		Total (n=36)	
	S (%)	R (%)	S (%)	R (%)	S (%)	R (%)	S (%)	R (%)	S (%)	R (%)
Amikacin	10 (88%)	2 (12%)	6 (75%)	2 (25%)	7 (88%)	1 (12%)	6 (75%)	2 (25%)	29 80%	7 20%
Cefepime	3 (25%)	9 (75%)	7 (88%)	1 (12%)	6 (75%)	2 (25%)	7 (88%)	1 (12%)	23 63%	13 37%
Cefoperazone	5 (42%)	7 (58%)	3 (38%)	5 (62%)	2 (25%)	6 (75%)	6 (75%)	2 (25%)	16 44%	20 56%
Gentamicin	8 (66%)	4 (34%)	4 (50%)	4 (50%)	4 (50%)	4 (50%)	6 (75%)	2 (25%)	22 61%	14 39%
Levofloxacin	6 (50%)	6 (50%)	7 (88%)	1 (12%)	6 (75%)	2 (25%)	4 (50%)	4 (50%)	23 64%	13 36%
Tobramycin	2 (12%)	10 (88%)	4 (50%)	4 (50%)	4 (50%)	4 (50%)	4 (50%)	4 (50%)	14 38%	22 62%
Ceftriaxone	4 (34%)	8 (66%)	6 (75%)	2 (25%)	6 (75%)	2 (25%)	5 (62%)	3 (38%)	21 58%	15 42%
Piperacillin + Tazobactum	10 (88%)	2 (12%)	6 (75%)	2 (25%)	6 (75%)	2 (25%)	5 (62%)	3 (38%)	27 7 75%	9 25%
S = Sensitive; R = Resistance; n = number of isolates										

Table 5: Antibiogram of Burkholderiacepacia.

Antibiotics	Burkholderiacepacia (n=7)	
	S (%)	R (%)
Amikacin	1 (14%)	6 (86%)
Gentamycin	1 (14%)	6 (86%)
Ciprofloxacin	2 (28%)	5 (72%)
Ceftazidime	6 (86%)	1 (14%)
Cefixime	2 (28%)	5 (72%)
Co-trimoxazole	7 (100%)	0 (0%)
Meropenem	7 (100%)	0 (0%)
Piperacillin + Tazobactum	5 (72%)	2 (28%)

S = Sensitive; R = Resistance; n = number of isolates

3. Discussion:

Diabetic foot ulcer is one of the most common complications requiring hospitalizationamong diabetic patients.Non-traumatic lower limb amputation is the most common devastating complication of diabetes, primarily due to diabetic foot ulcer and infections. Diabetic associated foot ulcers followed by infections causes dreaded complications like gangrene and lower extremity loss. Diabetic peripheral neuropathy and peripheral arterial disease are the key etiological agents in foot ulcerations.

Diabetic foot infections and ulcers are more common in the older age group compared to younger ones. In our study we found that the elderly patients who are above 50 years age are more commonly affected. This result was similar to previous studies that showed more of the study participants acquired DFIs as a complication when they were above the age of 50 [9, 10].Various studies also showed that DFIs has the longest duration of hospitalization as compared to other complications occurring in diabetic patients[11].In this study, we found that most of DFIspatients was hospitalized for over 10 days long (73.84%). However, there were also some patients hospitalized for10 days or less before they get discharged.

Our study found that *Pseudomonas aeruginosa* (18.46%) are the most common bacteria found as the etiologic agent in the DFIs followed by Staphylococcus aureus, E.coli, *Acinetobacter baumannii* and *Klebsiella*

pneumoniae were isolated in 12.3 % cases each. In another study, it was found that the most common microorganism isolated from pus cultures was *S. aureus* (47.5%) [12]. A study conducted at Koja Regional General Hospital, Jakarta showed that *P. aeruginosa* was the most frequent bacteria (40.9%) isolated from DFIs [13]and our study showed similarities with this study. *Burkholderiacepacia*which was uncommon agent isolated in 10% of the patients and multiple organisms were isolated in 11 cases (16.92%).

Nearly 62.5% had lesions for 3 months before presenting to the hospital.Osteomyelitis was present in 44.6% cases. Peripheral neuropathy was present in all cases. More than 60% cases were surgically treated with debridement. Among patients of diabetic foot ulcer 66.15% (n=43) patients have poor glycaemic control with mean duration of diabetes of 9.4 ± 5.7 years. Another study conducted at Indonesia showed almost similar findings with mean duration of diabetes being 6.45 ± 2.4 years[14]. Hypertension was present in 84.5% of the cases. In majority of cases the right foot (69.3%) is involved more that the left foot (30.7%).

Based on the antibiotic susceptibility pattern, 75% strains of *S. aureus* were found to be resistant to levofloxacin. All strains of Gram-positive cocci showed sensitivity toward vancomycin (100%), amikacin (92%) and ciprofloxacin (71%). Among the isolates of Pseudomonas Piperacillin + tazobactam showed good activity and majority were sensitive to amikacin (88%). In *E.coli*, themajorityofstrainswereresistant to cefoperazone (75%) followedby gentamicin and tobramycin. *Klebsiellaspecies* were found to be highly resistant to cefoperazone(62%).

Among the isolates of *Burkholderiacepacia* all are sensitive to Meropenem (100%) and Co-trimoxazole (100%) followed by ceftazidime (86%) and majority showed resistance to Amikacin (86%) and Ciprofloxacin (72%). These findings are similar to the study[15] conducted in 2017 where fifteen isolates of *Burkholderiacepacia* were isolated from different sites and found that majority are sensitive to carbapenem group followed by chloramphenicol and Co-trimoxazole.

Diabetic foot infection is one of the complications of DM that is very difficult to overcome, and therefore the management of DFIsshould be performed in a multidisciplinary approach. The frequency of hospitalization, previous duration of antibiotic therapy, ulcer type, ulcer size, and osteomyelitis are the independent risk factors for DFIs that need to be monitored closely in diabetic patients.The broad-spectrum antibiotics should be used parenterally in cases of chronic or severe infections.

Based on our results and what is documented in literature so far, it is ample clear that there is no antibiotic which can cover all isolates, and therefore, a combination of drugs has to be recommended to overcome the extensive multi drug resistance.

4. Conclusion:

Foot infections of diabetic patients are initially treated by empirical antibiotics directed atknown causative organisms which may improve the outcome. If all diabetic foot infections are recognized early and treated aggressively with appropriate antibiotics, then the incidence of osteomyelitis and foot amputations will decrease drastically.

Burkholderiacepacia, which was earlier an uncommon infection in diabetic sfoot ulcer, was found in significant (10%) number of cases. This may be due to improper waste management and change in environmental conditions.

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Original Article

A CROSS-SECTIONAL STUDY OF DENGUE HEPATOPATHY IN A TERTIARY CARE CENTRE OF EASTERN ODISHA

Suvankar Dey[1*], Rajdeep Sarkar[2], Ambika Prasad Mohanty[3], Pradip Kumar Behera[4]

Background: Dengue is a common tropical disease with varied presentation ranging from asymptomatic infection to multiple organ dysfunction syndrome(MODS).**Aim and Objectives:**To study the present clinic-epidemiological profile of dengue fever in Odisha and pattern of hepatopathy in dengue patients.**Material and Method:** This prospective, cross-sectional, observational study was conducted at KIMS & PBMH, Bhubaneswar, Odisha. A total of 62 patients with dengue fever (NS1Agpositive by ELISA method) admitted to medicine ward were included in the study. A detailed history collected, clinical examination was done andcomplete blood count, liver function test on the day of admission was recorded. USG abdomen and chest x-ray were carried out. All the study variables were analyzed by appropriate statistical method.**Results:** Among 62 patients studied, 41 were male and 21 were female. Most common Liver dysfunction was elevated AST which was found in 69.35% of patients. Elevation in ALT level(41.93%) was always associated with elevated AST level. Incidence of derangement is higher among those with leukopenia, thrombocytopenia or both.**Conclusion:** Liver dysfunction in the form of raised AST/ALT was seen in maximum number of patients with rise of AST significantly higher than ALT. So, AST and ALT can be useful early marker to assess the severity of the disease which can thus lead to early recognition of high-risk cases. **Key Words:**Dengue, Hepatopathy, Liver Enzymes, Thrombocytopenia, Multi-organ dysfunction syndrome

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Introduction:

Dengue is a febrile illness caused by the group of dengue viruses belonging to the genus *Flavivirus* and transmitted by *Aedes aegypti* or *Aedes albopictus* mosquito.Dengue infection is a major health problem worldwide especially in tropical countries like India. It is the 2nd most common arthropod borne disease in India succeeding malaria.[1]An estimated 390 million dengue virus infections occur annually, of which 96 million manifest clinically[2].A few decades earlier Dengue fever had a predominant urban distribution but recent researches reported an increase in prevalence from peri-urban as well as rural areas.[3]Dengue fever presents with a myriad of symptoms which other than fever may include but are not limited to myalgias, arthralgias, retro-orbital pain, conjunctival congestion, headache, vomiting and pain abdomen. Bleeding manifestationslike melena, hematuria, bleeding gums, palatal petechiae may be seen.[4]But the spectrum of presentation may range from asymptomatic state to multiorgan dysfunction syndrome(MODS). Hyperbilirubinemia with elevated liver enzymes is common in dengue fever. But the study by various researchers have shown different grades and patterns of hepatic dysfunction in Dengue. Amit Soni et al[5] and Surendra et al[6] in their study found that a 2to 4-fold rise of SGOT was more common in their subjects whereasNarashiman et al [7]and Venkat et al[8] observed 4-to-6-fold rise of SGOT in Dengue to be more common. Venkat et al,Narashiman et al and Amit soni et al observed a4-6-fold rise of SGPT to be more common whereas Surendra et al have a different observation with maximum of their patients had more than 10-fold rise of SGPT. With this background of variable severity of hepatic involvement, the present study was undertaken as a prospective cross-sectionalstudy to find out thepattern and severity of hepatic involvement among a cohort of hospitalized patients with dengue fever.

Methods & Materials:

This prospective, cross-sectional, observationalstudywas conducted at KIMS PBMH, Bhubaneswar a tertiary care hospital in Eastern Odisha. A total of 62 patients with dengue fever(NS1Ag positive by ELISA method) admitted to medicine wards were included in the study.Data on the day of admission was analyzed. A detailed history, clinical examination, complete blood count, liver function test, USG abdomen and Chest x-ray were done.

Inclusion Criteria:

All adult patients with Dengue fever – NS1Ag positive

Exclusion Criteria:

a) Patients With Dengue IgM/IgG positive

b) Other infection causes hepatopathy like malaria, scrub typhus, enteric fever, Hepatitis B, Hepatitis C etc.

c) Age <18 years

d) Patients with alcoholic liver disease

e) Patients with drug induced hepatotoxicity

Results:

A total of 62 patients were included in our study. Out of 62 patients 41 were males and 21 were females. (Table 1)

Table 1: Gender distribution of study participants

Gender	No. of patients	%
Male	41	66.13
Female	21	33.87
Total	62	100

The mean age of cases in our study was 39.17 years. It was noted that the incidence of dengue fever more between 18 years to 40 years age group (56.45%). (Table 2)

Table 2: Age wise distribution of cases

Age in years	No. of patients	%
e" 18 - 40	*35*	56.45
41 – 60	18	29.03
e" 60	9	14.52
Total	62	100

After analyzing all the patients at the time of presentation the most common symptom was fever followed by headache. Though rashes were the less common and delayed manifestation of dengue in our study.(Fig. 1)

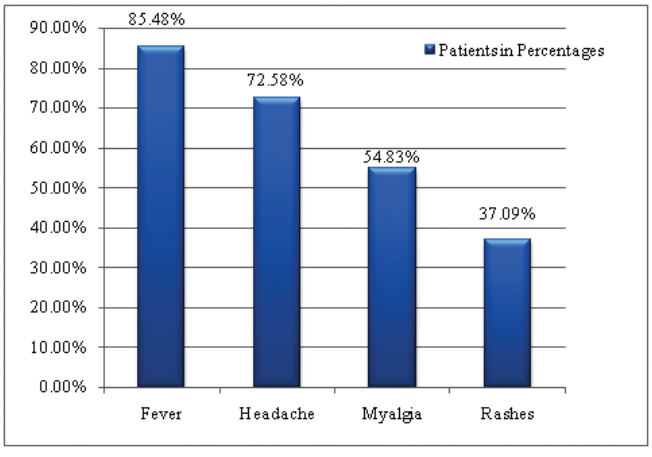

Fig. 1: Symptoms at the time of presentation

The average AST and ALT level of our patients were 175.51±154.35 units/L and 109.59±84.42 units/ Lrespectively. There were 69.35% patients who had their AST level>2xULN, while 41.93% patients had ALT >2xULN. The average platelet count of our patients was (103274.2±58442.7). In our study Leukopenia and Thrombocytopenia were seen in 48.38% and 67.74% patients respectively. (Table 4)

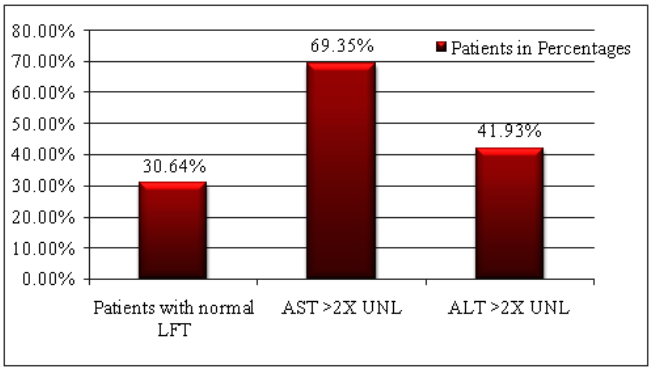

Fig. 2: Liver function in Dengue patient

Table 4: Lab parameters at the time pf presentation(mean±SD)

Parameters	Value
Avg. AST level (U/L)	175.51±154.35
Avg. ALT level (U/L)	109.59±84.42
Avg. alkaline phosphate level (U/L)	77.19±29.42
AST >2xULN	43 (69.35%)
ALT>2xULN	26 (41.93%)
Avg. leukocyte level (/µL)	4293.5±1744.5
Avg. platelet level (/µL)	103274.2±58442.7
Leukopenia	30 (48.38%)
Thrombocytopenia	42 (67.74%)

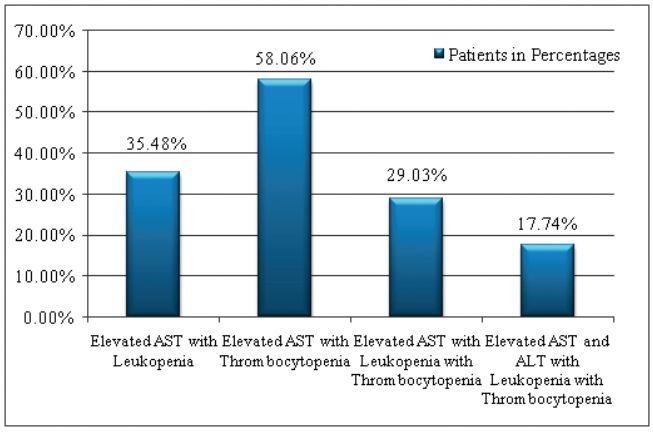

Fig. 3 : Relationship between Hepatic enzymes and Cytopenia

We found 17 patients had hepatomegaly and 6 patients had splenomegaly. Mild to moderate ascites and pleural effusion were present in 15 and 11 numbers of patients. (Table 5)

Table 5: Clinical and radiological findings at the time of hospitalization

Signs	No. of patients	%
Hepatomegaly	17	27.41%
Splenomegaly	6	9.6%
Ascites	15	24.19%
Pleural effusion	11	17.74%

Discussion :

Dengue viral infections are one of the most rapidly evolving vector borne infections, affecting nearly 125 countries and causes approximately 100 million apparent infections each year. The transmission of dengue virus infection is predicted to be more intensified in dengue endemic countries. Due to climate change and other factors, the infection may spread to countries that are currently not significantly affected by dengue in Europe and America.[9]Dengue virus infections cause a wide clinical spectrum of disease, from a mild febrile illness known as 'denguefever' through to 'severe dengue', previously known as dengue haemorrhagic fever (DHF), which is characterized by capillary leakage leading to hypovolaemic shock, organ impairment and bleeding complications.[10]Involvement of the liver leading to hepatic dysfunction is a well-recognized complication of dengue [11,12]. Dengue associated acute liver failure has a high mortality due to complications such as encephalopathy, severe bleeding, renal failure and metabolic acidosis. Although dengue associated acute liver failure is thought to occur due to liver injury as a result of prolonged shock, it is also known to occur in the absence of shock.[12]

With the objective of studying the pattern and severity of liver involvement in Dengue fever a total of 62 patients were recruited in the present study by convenient sampling method. Out of 62 patients 41 were male and 21 were femalewith a male to female ratio of 1.95:1. Most of the patients were in the age range of 18 years to 40 years of age(56.5%). A similar observation was noted in the study done by *Kumar S et al.*[6] whofound that male (80%) were predominantly affected than female. The male predominance may be due to the fact that males are engaged in outdoor activities and more likely to be victims of Aedes mosquito. Most of the patients were in the age range of 20 years to 40 years (78%).Fever, headache, and myalgia were significant presenting complaints in their study[6]. We also found that at the time of presentation the most common symptoms of dengue patients were fever(85.48%) followed by headache (72.58%) and myalgia (54.83%). A similar clinical profile was also observed by Prafulla D et al.[12]Though rashes(37.09%) were the less common and delayed manifestation of dengue in our study. Vomiting

was an important symptom present up to 70% of patients in the study by Kumar S et al.[6]

Liver enzymes were deranged to different severity and pattern in different studies.*Babaliche Pet al.*[13] found that AST and ALT were abnormal in 76% and 51% of patients respectively. Average AST level was higher than ALT level in dengue patients. Similar study done by *Shukla Vet al.*[14] found that liver dysfunction was present in all patients and AST levels were higher than ALT levels.In our study we found 3 patients had clinically jaundice. We observed that there were 69.35% patients who had their AST level >2xULN, while 41.93% patients had ALT >2xULN. In our study we also found that AST level was higher than ALT level.The average AST and ALT level of our patients were 175.51±154.35 units/L and 109.59±84.42 units/L respectively. The averagealkaline phosphate level was 77.19±29.42 units/L.Liver involvement in acute dengue infection is frequently observed and sometimes leads to acute liver failure, with fatal outcomes. Many factors are thought to contribute to liver dysfunction, including hypoxic injury due to decreased perfusion, direct damage by the virus and immune mediated injury. [15]

Saha AKet al.[16] observed that leucopenia and thrombocytopenia were present in 79.52% and 57.58% dengue patients during admission respectively.We observed 42 (67.74%) patients had thrombocytopenia and 30 (48.38%) patients had leukopenia.Thrombocytopenia and leukopenia both were present in 20 (32.25%) patients.Another study by Rao et[17] al also observed a high prevalence of thrombocytopenia (90%) and leukopenia (76%) in acute dengue fever.We observed 58.06% patients had elevated AST with thrombocytopenia, 35.48% patients had elevated AST with leukopenia and 29.03% patients had elevated AST with thrombocytopenia with leukopenia.*Kumar S et al.*[6] found that hepatomegaly (56%) was common than splenomegaly (14%) among dengue patients. They also found ascites and plural effusion were present in 52% and 8% patients respectively We also found in our study that hepatomegaly (27.41%) was common than splenomegaly (9.6%) among dengue patients. Ascites and plural effusion were present in 24.19% and 17.74% patients respectively.

Conclusion :

Our study shows fever was the most common presenting symptom and hepatomegaly was most common presenting sign. There was high prevalence of hepatopathy among patients hospitalized with dengue. So, AST and ALT can be further studied as a useful early marker to assess the severity of the disease which can thus lead to early recognition of high risk cases.Larger studies with more number of samples and multicentric studies may further explore the utility of liver enzymes as prognostic markers in acute dengue fever.

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Review Article

IMEGLIMIN : THE LATEST ADD ON TO OUR ANTI DIABETIC ARMAMENTARIUM

Jayshree Swain

Abstract

Diabetes is rapidly growing health challenge and epidemic in India. India being diabetes capital of the world surpassing China in near future, it has the dubious dual distinction as one of the leading nations for both under and over-nutrition. Diabetes prevalence has increased in both rural and urban areas affecting younger population increasing risk of complications and economic burden. These alarming statistics rings alarm bell to achieve glycemic targets in the affected population to decrease diabetes-related morbidity and mortality.

In recent years as diabetes pathophysiology has been extended from ominous triad through octet and dirty dozen etc. There is a new scope to target multiple pathways at the molecular level to achieve a better glycemic target and further prevent micro and macrovascular complications. Mitochondrial dysfunction plays a key role in both beta cell failure and also insulin resistance. Hence targeting this molecular pathway helps in both insulin secretion and peripheral tissue sensitization to isulin. As imiglimin targets, this root cause of defective energy metabolism and insulin resistance, makes it a new add on therapy in Indian diabetic regimes to achieve the glycemic targets. Its good tolerability and efficacy profile in recent studies shows a new ray of hope in the journey to curtail diabetes-related morbidity in India.

Key words: Type2 Diabetes, Mitochondrial dysfunction, Imeglimin

Introduction

As we start exploring more & more insights into the pathophysiology of diabetes,newer avenues open up for the treatment of diabetes. Insulin resistance in muscle and liver, increase hepatic glucose production and â-cell secretory defect or failure represent the core pathophysiologic defects in type 2 diabetes. It now is recognized that the â-cell failure occurs much earlier and is more severe than previously thought. Subjects in the upper tertile of impaired glucose tolerance (IGT) are maximally/near-maximally insulin resistant and have lost over 80% of their â-cell function. In addition to the muscle, liver, and â-cell (triumvirate) others like the fat cell (accelerated lipolysis), gastrointestinal tract (incretin deficiency/resistance), á-cell(hyperglucagonemia), kidney (increased glucose reabsorption), and brain (insulin resistance) also play important roles in the development of dysglycaemia in type 2 diabetic individuals. Collectively, these eight players comprise the ominous octet. Oxidative phosphorylationis a key biochemical reaction, which occurs in our cells, and ensures energy homeostasis. Modification of the pathways of oxidative phosphorylation is a promising therapeutic target for diabetes, and imeglimin, a novel drug- utilizes this mechanism. The clinical trial programs of imegliminhas shown favourable results.

Mitochondrial Dysfunction and Diabetes

The major functions of mitochondria with respect to energy homeostasis are (a) Adenosine triphosphate (ATP) production(b) Generation of reactive oxygen species (ROS) (c) Apoptosis.Mitochondrial function is an integral part of glucose stimulated insulin secretion in pancreatic beta cells, and skeletal muscle oxidative phosphorylation. Various genetic and environmental factors can cause mitochondrial dysfunction. Mitochondrial dysfunction is a culprit defect that leads to type 2 diabetes by affecting beta cell function, insulin resistance, hepatic glucose output. Genetic factors such as mt DNA mutations, nDNA mutations and some other

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common genetic variants along with environmental factors like obesity, intrauterine malnutrition, environmental pollutants may be the cause of mitochondrial dysfunction.

Decreased mtDNA copy, decreased oxidative phosphorylation,increased long chain acyl CoA (LCAC),diacylglycerols (DAG)and ceramides are the main pathways for insulin resistance.

Liver also represents an important insulin sensitive tissue where in mitochondrial biogenesis may be critical to the pathogenesis of diabetes. In hepatocyte,PGC-1a is important in regulation of both gluconeogenesis and fat oxidation.Abnormal fusion fission cycling ultimately leading to failure of autophagy of dysfunctional mitochondria leads to beta cell failure causing abnormal insulin signalling and release(1).

Mechanism of Action Imeglimin

Imeglimin is the first in a new tetrahydrotriazine containing class of oral antidiabetic agents referred to as glimins.It is an inhibitor of oxidative -phosphorylation chemical reactions taking place inside the mitochondria of cells. Thus, it exerts a strong metabolic effect in eukaryotic cells.Imeglimin has been shown to have positive benefits on three of the primary organ systems negatively impacted by Type 2 DM :Pancreas ,liver and the skeletal muscle . It was approved in Japan in June 2021 and in India in October 2022 (500 mg) and November 2022 (1000mg).

Imeglimin improved mitochondrial function by modulating complexes I ad III activities.Itpromotes mitochondrial fatty acid oxidation and normalizes phospholipid composition in the mitochondria of diabetic animals which resulted in improved glucose homeostasis.

There are several documented effects of imeglimin causedby modulation of mitochondrial function and hence leading to a potentially favourable downstream sequelae.In diseased pancreatic islets imeglimin enhances ATP generation and increases the ATP/ADP ratio implicating a net improvement in mitochondrial function .

The proposed mechanisms by which imeglimin improves mitochondrial bioenergetics – (a) it blocks the excessive substrate oxidation through complex I (b) increase in NAMPT and NAD+ that in turn potentiates Complex Iand (c) Complex II and lipid oxidation will lead to increase in cellular energetics that will in turn result in insulin sensitivity and decrease in insulin resistance(2).

Role of Imeglimin in Insulin Sensitivity

Imeglimin can improve insulin sensitivity through several molecular pathways. It can promote insulin signal transduction by increasing Akt protein kinase and phosphorylation. Imeglimin's insulin sensitizing effect might potentially include glucose transporter-4 (Glut-4) expression and modulating insulin receptor substrate (IRS) phosphorylation.

Role in Gluconeogenesis

Fouqueray and co-workers in 2011 demonstrated that imeglimin markedly reduced thegluconeogenesis by down regulating the phosphoenolpyruvate carboxykinase and glucose- 6-phosphatase in isolated hepatocytes from rats. Wagner et al. in 2012 showed that imeglimin improved glucose homeostasis by modulating hepatic gluconeogenesis diabetic mice. Moreover, Vial and colleagues in 2014 demonstrated that imeglimin reduced the hepatic gluconeogenesis by inhibition of lactic acidosis via the mitochondrial-dependent pathway.

Role in -â Cell Function and Insulin Secretion

Lablanche and colleagues in 2018 provided data indicating that imeglimin attenuated â- cell apoptosis by lowering the glucotoxicity a mitochondrial-dependent mechanism.Theyalso suggested that imeglimin increasesâ -cell mass by inhibitory effects on permeability in transition pores of mitochondria. There is growing evidence confirming the protecting roles of imeglimin on â -cells.

Role in Oxidative Stress

Recent evidence indicates that imeglimin has antioxidative potentials which enables it to ameliorate free radical generation and readjust the redox state. Vial and colleagues 2015 reported that imeglimin attenuated oxidative stress by suppressing the mitochondrial free radical generation leads to improved glucose homeostasis.

Metabolism

Imeglimin undergoes moderate intestinal absorption (50-80%) through the mechanism of active paracellular route. There is no evidence of cytochrome P450 inhibition or induction.The half-life is 13 hours and a steady state concentration is achieved at five days of administration.It is excreted through kidneys, mostly unchanged.

Clinical Evidence

Imeglimin significantly improved HbA1C in Japanese treatment naïve Type 2 DM patients compared with placebo and had a similar safety profile to placebo. It represents a potential new treatment option for this population(3). In uncontrolled Type 2DM addition of imeglimin to metformin improved glycemic control and offers potential as a new treatment for type 2 DM patients(4). Imeglimin demonstrated incremental efficacy benefits as add on therapy to sitagliptin, with comparable tolerability to placebo, highlighting the potential for imeglimin to complement other oral anti hyperglycemic therapies(5). It provides well tolerated long term (52 weeks)safety and efficacy in both monotherapy and oral combination therapy (which include DPP4-inhibitor, sulfonylurea, SGLT2 inhibitor ,AGI, TZD and Metformin)in Japanese type 2 Dm patients (6). Similarly difficult to controlType 2 DM patients withinsulin,Imeglimin significantly improved HbA1C and had a similar safety profile to placebo. The efficacy of imeglimin on top of insulin was sustained for 52 weeks. Imeglimin represents a potentital new treatment option for this population as add on to insulin therapy(7). Imeglimin clearly shifted the daily glucose profile into an appropriate range in Japanese diabetic patients, indicating improvement of short-term glycemic control, less glycemicvariability(8). It will be promising therapeutic agent for those who have low insulin secretory capacity ,particularly Asian -Indian phenotype . It is concluded from a systematic review and meta-analysis of clinical evidence that imeglimin displays promising improvements in HbA1C and fasting blood glucose and is generally well tolerated(9). Yet another systematic review and meta-analysis of randomized clinical trials of eight studies reveal that imeglimin safely improved glycemic control by reducing HbA1C and fasting plasma glucose, however no beneficial effects regarding insulin resistance measured by HOMA -IR or lipid parameters were observed.(10)

Safety

There were many safety trials conducted with imeglimintill date.Existing clinical datain trials like TIMES 1,TIMES 2,and TIMES 3-suggests: there are no apparent risks of severe hypoglycaemia and the risk of lactic acidosis appears to be very low, no medication based severe adverse effects are evident(10). Most common side effects nausea, diarrhoea,constipation and nasopharyngitis ,influenza and bronchitis and moreover all these symptoms are very mild.

Efficacy

Imeglimin as a monotherapy is shown to have a modest HbA1c reduction of about -0.94% to -1%.Greater HbA1C reduction seen with combination therapy with other OAD and insulin.

Dosage & Posology

Imeglimin is available as 500 mg,1000 mg tablets, the Dose Being 1000 mg twice daily after food. Presently approved only for Type 2 Diabetes. However, contraindicated for use in Pregnancy, Lactation, Children, SevereHepatic, Pituitary, Adrenal Dysfunction and with eGFR < 45 mL/1.73 m^2.Dose reduction is required to 500 mg twice daily if eGFR 15-45 mL/min/ 1.73 m^2(11).

Conclusion

Imeglimin is now approved in India by DCGI. The potential mode of action is unique and has been shown to differ from that of other major therapeutic classes,Hence it has definitive add on role to existing regimen.Overall imeglimin appears to target a key root cause of Type 2 DM that is defective cellular energy metabolism.Its good tolerability profile along with efficacy makes it a new add on therapy in Indian diabetic regime where most of patients still lag in achieving ADA glycemic targets and hence can further reduce complication burden.We might Hope that it will prove its mettle in the fight against diabetes in future.

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Review Article

OVERVIEW OF NEWER ANTI-VIRAL AGENTS

Amitav Mohanty

Abstract

The WHO Report on global health hazards 2019 list viral infections such as AIDS, global influenza pandemic, viral diseases caused by the Dengue virus (DENV), the Ebola virus (EBOV), and other high-threat pathogens including, Zika virus (ZIKV), Nipah virus, Middle Eastern Respiratory Syndrome coronavirus (MERS-CoV), Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV-1) as most important threats.The rapidity with which newly developing and re-emerging viruses may travel throughout the globe, inflicting severe human disease and death, adds to these difficulties. The continuing SARS-CoV-2 epidemic has brought the threat of viral diseases to the fore, as well as the difficulties we confront in creating effective countermeasures. Forefront to these are ongoing efforts to discover novel therapeutic agents to counter the emerging viruses and antiviral resistance. This review discusses the novel antivirals approved or under investigation within last 7 years for Influenza virus, HIV, Hepatitis,Herpesand SARS-CoV-2 virus.

Key words: Antiviral agents, Viruses, SARS-COV-2, HIV, Influenza, AIDS, COVID-19, Herpes, Hepatitis,

Introduction

Viruses are intracellular parasites that seize the control of their host's biological functions to facilitate their reproduction. They can cause chaos in the host cell and have fatal consequences for the host organism as well as the host population. Vaccines and public policies encouraging immunization are significant instruments in the battle against viral diseases, although vaccines for many of them are still unavailable. Antiviral therapies are also effective instruments in the fight against viruses, and they are being used to cure hepatitis C virus (HCV) infection and to maintain long-term control of human immunodeficiency virus (HIV) infection. Unfortunately, there are no generally active antivirals available to treat viral diseases due to the many methods of viral infection and reproduction.Antiviral resistance also diminishes vaccination and antiviral efficacy [1].

AIDS, global influenza pandemic, viral diseases caused by Dengue virus (DENV), the Ebola virus (EBOV), and other high-threat pathogens include, Zika virus (ZIKV), Nipah virus, Middle Eastern Respiratory Syndrome coronavirus (MERS-CoV), Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV-1) and COVID -19 caused by SARS-CoV-2 virus are among the ten global health hazards as per World Health Organization (WHO) 2019 report on global health hazards [2].

The continuing SARS-CoV-2 epidemic has brought the threat of viral diseases to the fore, as well as the difficulties we confront in creating effective countermeasures. This review discusses the novel antivirals approved or under investigation for Influenza virus, HIV and SARS-CoV-2 virus.

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Table 1: Antiviral Agents approved for COVID-19, HIV, Influenza

Therapeutic Compound	Infectious Agent	Mechanism of action	Dosage
Drugs for treating COVID-19			
Molnupiravir	SARS-COV-2	Inhibits replication of Viral RNA	800 mg every 12 hours with or without food for 5 days
Nirmatrelvir Plus Ritonavir	SARS-COV-2	Inhibits SARS-COV-2 Protease (Mpro)	(300 -100) mg every 12 hours with or without food for 5 days
Remdesivir	SARS-COV-2	Inhibits replication of Viral RNA	200 mg administered via IV infusion over 30 to 120 minutes
Drugs for treating Influenza			
Baloxavir Marboxil	Influenza A & B virus	Inhibits cap-dependent endonuclease activity of the Polymeric acid protein	40 mg for patients weighing 40 to < 80 kg; 80 mg for patients weighing e" 80 kg
Drugs approved For AIDS			
Cabotegravir Plus Rilpivirine	HIV-1	Cabotegravir is an integrase strand transfer inhibitor; Rilpivirine is a non-nucleoside reverse transcriptase inhibitor (NNRTI)	600 mg and 900 mg IM Injection;30 mg and 25 mg once daily for one month orally
Lenacapavir (Investigational)	HIV-1	Selectively inhibits HIV capsid Protein	
Fostemsavir tromethamine	HIV-1	Selectively inhibits HIV-1 attachment	600 mg b.i.d
Ibalizumab	HIV-1	CD4-directed post-attachment HIV-1 inhibitor	single intravenous 2000 mg loading dose followed by the maintenance dose of 800 mg once every 2 weeks as I.V infusion for over 30 minutes
Doravirine	HIV-1	Inhibits viral DNA synthesis	100 mg/day
Drugs Approved For Hepatitis			
Bulevirtide	HBV and HDV	Blocks the entry of HBV and HDV into hepatocytes	2 mg every 24 hours by subcutaneous injection
Daclatasvir	HCV	Binds to NS5A and inhibit both viral RNA replication and virion assembly	60 mg orally once daily in combination with sofosbuvir with or without ribavirin

Sofosbuvir	HCV	Inhibits HCV NS5B RNA-dependent RNA polymerase and thus prevents viral replication	400 mg orally once daily
Tenofovir Alafenamide	HBV	Inhibits HBV replication through incorporation into viral DNA	25 mg orally once daily
Drugs approved for Herpes			
Amenamevir	HSV-1 and 2	Inhibits DNA replication of herpes virus by inhibiting the activity helicase-primase complex	400 mg once daily after meal
Pritelivir (Investigational)	TK and DNA polymerase HSV mutants	Inhibits DNA replication of herpes virus by inhibiting the activity helicase-primase complex	100mg/day (400mg loading dose on day 1) for up to 28 day orally
Drugs approved for cytomegalovirus (CMV) infection			
Letermovir	CMV	Inhibits the CMV DNA terminase complex which is required for viral DNA processing and packaging	480 mg administered once daily orally or as an intravenous (IV)infusion over 1 hour through 100 days post-transplant.
Maribavir	CMV	competitive inhibition of the proteinkinase activity of human CMV enzyme pUL97, which results in inhibition of thephosphorylation of proteins	400 mg (two 200 mg tablets) orally twice daily with or without food

Abbreviations: HIV - Human Immunodeficiency Virus; AIDS - Acquired immunodeficiency syndrome; SARS-CoV 2 - Severe acute respiratory syndrome coronavirus 2.

Drugs for Treating COVID-19 Infection

Molnupiravir

Molnupiravir is a prodrugwhich exerts its activity by being metabolised in to Beta-D-N4-hydroxycytidine (NHC), a cytidine nucleoside analogue and phosphorylated to form active ribo-nucleoside triphosphate (NHC-TP). Viral RNA Polymerase then incorporates NHC-TP into SARS-CoV-2 RNA leading to errors in the viral genome and inhibition of viral replication.

Molnupiravir has receivedEmergency use authorization (EUA) by USFDA for the treatment of mild to moderate COVID -19 infection in adults WHO are within symptom onset of 5 days, and who have high risk of disease progression and for whom alternate antiviral therapies are not available or appropriate. Molnupiravir is available as 200 mg capsules for oral use only. The authorized dose is 800 mg given every 12 hours or BD for 5 days. In Patients with renal failure and dialysisno renal dose adjustments are recommended as it does not have a significant impact on NHC exposure.

Animal reproduction studies indicate the teratogenic potential of Molnupiravir, however there is

no available clinical data on the use of molnupiravir among Pregnant women. Therefore, Molnupiravir is not recommended for use in Pregnant women. [3] This drug has not been approved in India by ICMR (till the submission of this article).

Ritonavir Boosted Nirmatrelvir (Paxlovid)

Nirmatrelvir is an orally bioavailable protease inhibitor that has demonstrated antiviral activity against all the available strains of coronavirus.It is active against the viral protease,Mpro. Mpro bycleaving the 2 viral polyproteins plays an essential role in viral replication. Nirmatrelvir Inhibits the SARS-CoV-2 Mpro and renders it incapable of processing precursors of polyprotein, thereby preventing the viral replication.Nirmatrelvir is packaged with ritonavir (as Paxlovid), a potent cytochrome P450 (CYP) 3A4 inhibitor and pharmacokinetic booster that has been used to boost HIV protease inhibitors.Ritonavir co-administration increases the nirmatrelvir concentrations to the target therapeutic range.

Ritonavir-boosted nirmatrelvir has been granted an Emergency Use Authorization (EUA) by USFDAfor the treatment of COVID-19. It is co-packaged as 150 mg and 100 mg tablets for oral use only. The authorizeddose is 300mg-100mg (two nirmatrelvir tablets and one ritonavir tablet) taken 12 hours for5 days. Repeat or extended courses of therapy is not allowed under the EUA. For patients with mild renal impairment (eGFR >= 60 to < 90 mL/min)no dose adjustment is needed. However, nirmatrelvir dose is recommended to be decreased to 150mg every 12 hours. Nirmatrelvir-ritonavir use is not recommended in patients with severe renal impairment (eGFR < 30 mL/min).[3]

Remdesivir

Remdesivir, the Prodrug for adenosine analogue was the first drug approved for the treatment of covid-19 infection in adults and paediatric patients (e" 12 years) by USFDA. Upon phosphorylation it is converted in to pharmacologically active metabolite Remdesivir triphosphate. Remdesivir triphosphate by acting as an analogue of natural adenosine triphosphate (ATP) substrate competes with it for nascent RNA chains incorporation.

The authorized dose is 200 mg administered via IV infusion over 30 to 120 minutes followed by 100mg iv od up to 10 days. The common adverse events associated with remdesivir include nausea, increased AST and ALT. Therefore, Hepatic lab testing is recommended before initiating the treatment. Remdesivir use has not been evaluated in patients with renal impairment. Hence, it's use is not recommended in patients with an eGFR d"30 Ml/ min[4].

Drugs for Treating Influenza

Baloxavir Marboxil

Baloxavir marboxil is a first-in-classsmall molecule inhibitor of the polymerase acidic (PA) protein subunit of the polymerase complexof influenza virus. It is a prodrug which after conversion to baloxavir acid selectively inhibits of the cap-dependent endonuclease activity of the PA protein of influenza virus. The PA protein, is essential for virus RNA transcription, and its inhibition blocks the replication of influenza virus.

Itis approved in US and Japan for the treatment of acute uncomplicated influenza A & B insymptomatic (d" 48 h) patients e" 12 yearsof age as single oral dose. SinceBaloxavir pharmacokinetics are affected by bodyweight, weight-based dosing is recommended. For patients weighing 40 to < 80 kg and e" 80 kg the recommended dose is 40 mg and 80 mg respectively. It is contraindicated with dairy products, calcium-fortified beverages, laxatives, antacids, or oral dietary supplements (e.g., calcium, iron, magnesium, selenium, or zinc supplements)[5].

Drugs for Treating AIDS

Cabotegravir and Rilpivirine

Cabotegravir is an integrase strand transfer inhibitor (INSTI) and Rilpivirine is a non-nucleoside reverse transcriptase inhibitor (NNRTI). This combination is approved in US and Europe as co-packaged kit both as separate extended release injectable suspensions for Intramuscular use (IM) and as tablet for oral use. The oral combination treatment is indicated as an oral lead-in for assessing Cabotegravir tolerability prior to intramuscular regimen or as oral bridging therapy.

The recommended IM loading doses of Cabotegravir andrilpivirine 600 mg & 900 mg respectively, administered at separate gluteal sites. Before initiating IM treatment, patients should receive oral lead-in therapy of one 30 mg cabotegravir tablet

and one 25 mg rilpivirine tablet once daily for H”1 month. The recommended maintenance doses are 400 mg & 600 mg for Cabotegravirand rilpivirine respectively[6].

Lenacapavir

Lenacapavir is novel, first-in-class, investigational, selective inhibitor of the HIV capsid protein. Lenacapavir binds to two adjacent subunits of the HIV capsid protein and prevents them from interacting, which is crucial for several aspects of the viral replication cycle. Virion generation, correct capsid core formation, and capsid-mediated nuclear absorption of pre-integration complexes are a few of these. Lenacapavir causes viruses to form with incorrectly shaped capsids that can penetrate fresh target cells but are unable to reproduce. It showcased potent antiviral activity against site directed mutant of HIV-1 and antiretroviral. Lenacapavir can be administered in oral formdaily or weekly in combination with other antiretroviral agents[7].

Fostemsavir Tromethamine

Fostemsavir tromethamine is a prodrug which is hydrolysed to the active molecule temsavir, an HIV-1 attachment inhibitor. Temsavir exerts activity by binding to the gp120 subunit of HIV-1 envelope glycoprotein gp160 and thereby prevents attachment. It is administered orally as 600 mg tablet b.i.d in adults with multidrug resistant HIV-1 infection who failed their current antiretroviral regimen.

Fostemsavir tromethamine administration result in elevations in hepatic transaminases among patients co-infected with hepatitis B virus (HBV) or hepatitis C virus (HCV). Dosage higher than recommended have been reported to prolong the QT interval of the electrocardiogram. Therefore, caution should be exercised when used in patients with a QT interval prolongation history or who are concurrently being treatment with drugs that prolong the QT interval[4].

Ibalizumab

Ibalizumab is a first CD4-directed post-attachment HIV-1 inhibitor and the first humanised monoclonal antibody approved for the treatment of HIV infection. It blocks the entry of HIV into the CD4 cells without cause impairment in the normal immune function of the patient. In USA it is approved as combination antiretroviral regimen for with multidrug resistant (MDR) HIV-1 infected patients who failed their current antiretroviral regimen. It is administered as a single intravenous 2000 mg loading dose followed by the maintenance dose of 800 mg once every 2 weeks. The loading dose should be infused for over e”30 min. If patient does not experience any infusion-related adverse reactions, the duration of maintenance doses can be reduced toe”15 min. No dose alteration is required in patients with hepatic and renal impairment[8].

Conclusion

Viral infection continues to present a major threat to human health globally. In past few years’ novel antiviral agents with new mechanism of action has been approved worldwide. However, continued emergence of new viral infection and ongoing antimicrobial resistance has necessitated the escalation of discovery for new antiviral agents.

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Case Report

DIFFUSE ALVEOLAR HEMORRHAGE - A RARE PRESENTATION IN A YOUNG INDIAN FEMALE WITH SLE

Anupam Dey[1], Debasis Panda[2], DebanandaSahoo[3], Sujata Devi[4], Arpita Dash[5]

Introduction

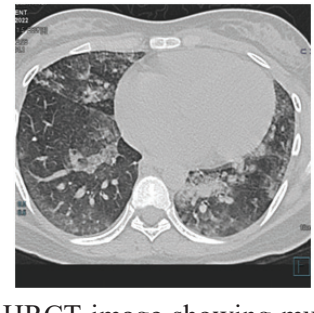
Systemic lupus erythematosus (SLE) is a chronic autoimmune disorder with multisystem involvement, systemic inflammation and widespread end organ damage. It is commonly seen in young female of reproductive age group with average age of onset 15-45 years.[1]Pulmonary manifestations include pleuritis, pleural effusion, pneumonitis, interstitial lung disease, pulmonary artery hypertension etc. Diffuse alveolar hemorrhage(DAH) is a rare and fatal complication described in 1% patients with SLE.[2]Patients with SLE presenting with new onset shortness of breath, haemoptysis and drop in hemoglobin (Hb) with infiltrates in chest imaging raise the suspicion of DAH. It carries high mortality around 62% despite multiple treatment options.

Case Report

A 16-year-old female presented to emergency department with complaints of rashes in extremities, low grade fever, myalgia, arthralgia, dyspnoea and cough with scanty expectoration for 20 days. Patient on presentation was hemodynamically stable. Routine evaluation revealed anaemia with Hb of 9.4g/dl, mild leukopenia with TLC 2700/mm3, renal function revealed creatine of 1.7 mg/dl and urea 40 mg/dl. Her chest x ray revealed bilateral minimal infiltrates and she was started with antibiotics for community acquired pneumonia. During hospital course her shortness of breath worsened with haemoptysis and she required oxygen via face mask. Patient HRCT thorax showed bilateral confluent ground glass opacities and consolidation, ANA profile was positive for Smith, histones, SSA antibodies, Immunofluorescence revealed 1:320 coarse speckled pattern and patient was diagnosed to have SLE as per EULAR criteria. Patient was shifted to ICU and connected to NIV and received 1gram/day methylprednisolone for 3 days. Bronchoalveolar lavage was performed and BAL cytology revealed hemosiderin laden macrophages and diagnosis of DAH was confirmed. Patient was given cyclophosphamide 750mg and supportive management continued. Patient symptomatically improved gradually and oxygen was tapered off and patient was shifted to ward and discharged with oral steroids.

Discussion

Diffuse alveolar haemorrhage is a rare catastrophic complication of SLE described only in few patients. Classic presentation of DAH includes dyspnoea, cough and haemoptysis. Sudden onset respiratory insufficiency, drop in Hb, radiographic pulmonary infiltrates raise the suspicion of DAH in SLE patients. Pulmonary capillaritis is the most common underlying etiology. HRCT thorax shows bilateral central opacities with peripheral sparing. BAL showing hemosiderin laden macrophages more than 20% is strongly associated with DAH. Patients with DAH should be started on intravenous pulse steroids for 3-5 days followed by oral steroids. Other treatment options include cyclophosphamide, plasmapheresis and rituximab for refractory patients.



(Fig 1-Axial HRCT image showing multifocal ground glass opacities with interlobular septal thickening-consistent with DAH)

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Conclusion

DAH is a rare initial manifestation and deadly complication of SLE. It commonly presents with patients of diagnosed SLE but can be the initial manifestation of undiagnosed SLE as in our case. Early and aggressive therapy is key for its effective outcome. The use of pulse steroid and cyclophosphamide resulted in improvement in our case but plasmapheresis and rituximab are other options available. Awareness about association of DAH with SLE is of utmost importance due to its high mortality rates.

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Case Report

INTRACEREBRAL HAEMORRHAGE FOLLOWING SCORPION STING: A RARE PRESENTATION

Anupam Dey[1], Anil Dash[2], Sujata Devi[3], Debananda Sahoo[4], Arpita Dash[4]

Abstract

Scorpions are a common group of arthropods found in tropical and subtropical regions. They use their long, flexible tails to sting potential predators and cause envenomation. Envenomation is frequently associated with cardiovascular, respiratory, autonomic and central nervous system manifestations. We report the case of an intracerebral haemorrhage occurring in a man in his fifties within six hours of a scorpion sting.

Introduction

Scorpion sting is a major public health problem, especially in tropical and subtropical climates including southern parts of India. Scorpionism is the clinical picture that follows envenomation. Cardiovascular and respiratory involvement is quite common in the early hours following envenomation and may even be fatal in severe cases however neurological manifestations following scorpion sting are quite uncommon in the Indian subcontinent. Cerebral edema, cerebrovascular accidents, encephalopathy and cortical necrosis are some of the CNS complications described in the literature following scorpionism(1). Here we describe the case of a man in his fifties with Intracerebral Haemorrhage (ICH) following a scorpion sting.

Case Report

A 55-year-old male without any prior comorbidities presented to the Emergency Department with a history of scorpion sting on the dorsal aspect of his right foot 12 hours prior. Initially, after the sting, the patient was having localised pain and itching for which he did not seek any treatment. Six hours after the incident, the patient started having headaches with multiple episodes of vomiting followed by altered sensorium for which he was brought to our hospital. At the time of presentation in the ED, the patient was tachycardiac (heart rate 120/min), hypertensive (BP-162/98 mm Hg) and tachypnoeic (RR- 26/min) with a GCS of 9 (E3V1M5). Pupils were bilaterally equal and reactive to light.

Routine investigations were within normal limits. ECG showed sinus tachycardia and the X-ray chest was within normal limits. NCCT Brain (Figure 1) revealed small ICH involving the head of the right caudate nucleus and the periventricular region adjacent to the frontal horn of the right lateral ventricle. The patient was started on prazosin for blood pressure control and received other supportive management. The patient had regained full consciousness five days post-admission and was not having any residual neuro deficits.

Discussion

The toxin released by the scorpion sting causes autonomic dysregulation with a variety of clinical presentations like myocarditis, cardiogenic shock, Acute Respiratory Distress Syndrome, acute renal failure, disseminated intravascular coagulation and cerebrovascular disease. Cerebrovascular involvement is found in approximately 8 per cent of cases; two-thirds of which is due to ischemic stroke and the remaining third is due to ICH(2). Most scorpion stings require only symptomatic management and clinical monitoring for cardiovascular or respiratory involvement. Dobutamine can be considered in cases of cardiogenic shock. Scorpion antivenom should be administered in cases of severe envenomation and prazosin should be given to neutralise the toxin-induced autonomic storm(3).

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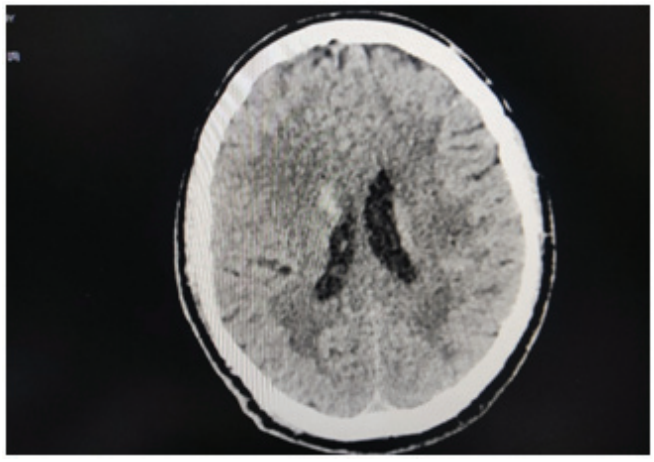

Figure 1: NCCT Brain showing small ICH (black arrow) involving the head of right caudate nucleus and the periventricular region adjacent to the frontal horn of the right lateral ventricle

Conclusion

In patients without any prior comorbidities presenting with ICH, proper history should be taken to rule out certain rare causes. Similarly while dealing with a case of scorpionism, the neurotoxic potential of the toxin should be kept in mind and be ruled out with appropriate imaging.

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Case Report

AORTO-ILIAC OCCLUSION WITH PARAPLEGIA IN A YOUNG MALE- A RARE CASE OF CATASTROPHIC ANTIPHOSPHOLIPID SYNDROME

Rajdeep Sarkar[1], Suvankar Dey[1], Pradip Kumar Behera[2]
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Abstract:

Thrombotic events in patients with anti-phospholipid syndrome (APS),occur predominantly in women and at a younger age. The majority of the thrombotic events affect the deep venous system of the lower limbs and arterial thrombosis predominates in the cerebral territory.Catastrophic APS (CAPS) is the most severe form of APS with multiple organ involvement developing over a short period of time, usually associated with microthrombosis.Involvement of aortic disease in APLA is an anecdotal fact in the literature. A case of infra renal aortic occlusion involving both iliac arteries and acute onset paraplegia associated with primary anti-phospholipid syndrome in a young male is presented here in view of rarity.

Introduction

The term antiphospholipid syndrome (APS) was first proposed by Harris and associates[1] to define the combination of both venous and arterial occlusive events and recurrent foetal loss which may be associated with thrombocytopenia. APS is an au-toimmune disease characterized by arterial and venous thrombosis due to antiphospholipid an-tibodies. The disorder is referred to as primary when it occurs in the absence of another autoim-mune disease. Secondary APS occurs in the con-text of an autoimmune disorder such as system-ic lupus erythematosus. The catastrophic APS (CAPS), a fatal variant of APS, with a prevalence of 1% in APS population, was first described in 1992 and defined as thrombosis of at least three different organ systems over a very short period of time with histopathologic evidence of multiple small vessel occlusions and high titres of antiphospholipid antibodies (aPL)[2].CAPS is due to antiphospholipid antibodies directed against a heterogeneous group of proteins that are associated with phospholipids.Antiphospholipid antibodies are lupus anticoagulant, antibodies against cardiolipin, â2-glycoprotein I which are serological hallmark of CAPS.These autoantibodies activate endothelial cells, platelets, and immune cells, thereby promoting a proinflammatory and prothrombotic phenotype. Furthermore, antibodies inhibit anticoagulants, impair fibrinolysis, and activate complements.In the majority of patients with CAPS, a precipitating factor such as infection, surgery, or medication can be identified. CAPS can affect a variety of organs and tissues, the kidneys, lungs, central nervous system, heart, skin, liver, and gastrointestinal tract are most commonly affected. The systemic inflammatory response syndrome, likely to extensive tissue damage, accompanies CAPS. Despite widespread intravascular coagulation, blood films reveal only a small number of schistocytes. In addition, severe thrombocytopenia is uncommon. CAPS must be distinguished from other forms of thrombotic microangiopathies such as hemolytic-uremic syndrome, thrombotic thrombocytopenic purpura, disseminated intravascular coagulation, and heparin-induced thrombocytopenia. CAPS is associated with high morbidity and mortality. Therefore, an aggressive multidisciplinary treatment strategy is indicated. Anticoagulation, immunosuppression, plasma exchange, intravenous immunoglobulins, and anti-platelet agents, used in various combinations, have resulted in improved patient outcome.

Case Report

28 years male with no known comorbidities presented to emergency with sudden onset pain in lower back and paraesthesia in both legs followed byabsent sensation and complete loss of power of both lower

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limbs within next 20 mins from starting of the event. He also complained of inability to pass urine and stool for the past 14 hours. He was playing cricket at the time of onset of the event. His medical history was insignificant with no history of any intake of medication. There was no history of addiction or trauma or any febrile illness prior to the event.

On examinationpulse was 98 beats per minute, regular, feeble bilateral femoral pulse and absent popliteal, posterior tibial and dorsalis pedis artery pulse in both lower limbs, blood pressure was 130/80 mm Hg, respiratory rate was 24 breaths per minute, SpO2=98% in room air, temperature of 98%F. On neurological examination higher mental functions were normal and there was no cranial nerve involvement. Both upper limbs had normal motor and sensory functions.In both lower limbs there weregrade zero power with hypotonia and all deep tendon reflexes in both lower limbs were absent. He was catheterised in view of acute retention of urine and found to have cola coloured urine.

All routine investigations were sent along with urgent CT aortogram, which revealed non enhancing thrombus in infra renal part of abdominal aorta with extension into bilateral common iliac arteries and inferior mesenteric arteries (figure-1). Cause of such large thrombus formation was evaluated in detail. MRI of dorsal spine showed evidence of anterior spinal artery infarction. Baseline PT-INR, CBC, electrolytes, lipid profile were in normal range andreports of viral markers were negative. Urine Microscopy showed plenty of RBCs. Haemoglobin was in falling trend from 11.2gm% at admission to 5.9gm% on fourth day. BUN was in rising trend highest being on fourth day of presentation (urea=156mg/dL & creatinine 8.9mg/dL), LFT showed raised SGOT(1798U/L), SGPT(639U/L) & GGT(94U/L), low serum albumin(2.7mg/dl), raised CRP(249mg/L), LDH(12010) andd-dimer (7.63mcg/mL). 2D echo, chest-X-ray, USG abdomen all revealed normal study.Protein C, protein S, antithrombin-III, homocysteine, fibrinogen, FDP, sickling test, dsDNA, ANA profile, C3,C4 levels, lupus antibody, Beta-2 Glycoprotein IgM & IgG all were in normal limits except cardiolipin IgG & IgM were significantly high[cardiolipin IgG= 15.51U/mL(Normal<0.80),cardiolipin IgM=3.39U/mL(Normal<0.80)]

Patient was immediately put on intravenous heparin infusion at the rate 1000 IU/hr and tablet hydroxy chloroquine 200mg twice daily was added.Multidisciplinary consultation was done and decision for therapeutic plasma exchange was made along with intermittent dialysis in view of rising BUN level.First therapeutic plasma exchange(2600ml) was done on 4th day of presentation.On the 5th day peripheral angiography was done showing infrarenal aortic thrombotic cut-off. Balloon dilatation done and partial blood flow achieved.From the 6th day of onset patient started to feel symptomatically better and also there was clinical improvement in the form of presence of bilateral popliteal artery pulsations and side to side movement of both legs.Within 20 days from admission 7 cycles of therapeutic plasma exchange and three sitting of haemodialysis with 1unit PRBC transfusion was done. During the course he was under support of higher broad-spectrum antibiotics, INR was maintained between 3-3.5. Warfarin was overlapped with heparin for 5 days and was discharged with dose of 3mg once daily. Timely cardiolipin antibody levelswere checked and it came to normal after 18 days from starting of plasma exchange.

At discharge paraplegia improved to a level he could move his legs against gravity.He was followed subsequently on OPD basis. INR was maintained between 2.5-3. After 2 months of discharge, peripheral angiogram was done which revealed right common iliac artery(CIA) 80% stenosis for which in the same sitting right CIA angioplasty was done.

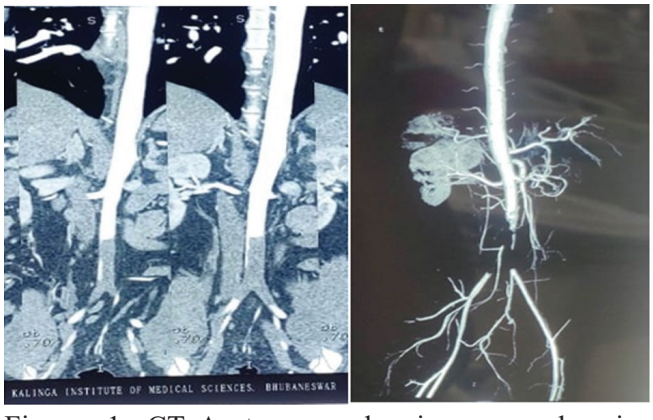

Figure: 1- CT Aortogram, showing non enhancing thrombus in infra renal part of abdominal aorta with extension into bilateral common iliac arteries and inferior mesenteric arteries.

After 3 months from the presentation, he was able to walk without support. Anticoagulants continued with periodic assessment of PT-INR levels which indeed has to be continued till lifelong.

Discussion

APS was first recognized in patients with systemic lupus erythematous (SLE) and later found in association with other autoimmune disorders. This condition has also been recognized as a syndrome that can develop independently in any underlying disease, known as primaryAPS [3]. CAPS is prevalent in 1% of APS population, defined as involvement of three or more organ systems manifesting in less than a week duration with histopathologic evidence of multiple small vessel occlusions and high titres of antiphospholipid antibodies [3].

Acute presentation with no risk factors in a male made it a rare case presentation which was difficult to diagnose.

Acute aortic occlusion(AAO) is a rare vascular emergency with a mortality rate that approaches 75%, resulting from numerous etiologies[4-5]. The anterior spinal artery is the major independent provider of blood flow to the anterior two-thirds of the spinal cord. Obstruction of blood flow in this region has been implicated in the clinical picture of anterior cord syndrome[6]. A recent retrospective series of 29 cases of AAO found that 17% of patients had a hypercoagulable state because of antiphospholipid antibody syndrome. The most common presentation of AAO is the abrupt onset of painful bilateral paresis or paraplegia[7]. In this case, the patient had no risk factors, all investigations came normal except higher levelsof cardiolipin antibody and aortoiliac thrombus. Post balloon dilatation and plasmapheresis, clinical condition gradually improved.No cases of definite CAPS associated with Leriche syndrome have been published to date. Interestingly, only one case of aortic occlusion was found in the "CAPS Registry"[8]. Also, in this registry it was found that CAPS was the first manifestation of APS in 46% of the 280 patients. The clinical manifestation of CAPS depends on the organ involvement affected by thrombosis. The major organs involved during the catastrophic episode were renal (71%), followed closely by lung (64%), brain (62%), heart (51%), and skin (50%). Our patient presented with paraplegia and later developed acute kidney injury and hepatopathy.

Although CAPS is a rare event, it may be lethal, thus warranting high suspicion index, prompt diagnosis and early treatment. Acute aorto-iliac occlusion disease(Leriche syndrome), infrequently with renal artery involvement, is a relatively rare macrovascular ischemic condition. In our case, a pathological continuum might have linked aortic occlusion with multi-organ thrombosis. Microangiopathic hemolyticanemia isfound in up to 22% of the patients with CAPS and represents a risk factor for relapse (72% vs. 7% of non microangiopathic CAPS)[9]. Notably, in our patient the first blood smear examination was negative for schistocytes, suggesting the importance of their thorough and sequential search in presence of high suspicion of thrombotic microangiopathy. Owing to the presence of this risk factor for relapse, hydroxychloroquine was added-on in our patient.

With respect to CAPS treatment, grades of evidenceare quite low in absence of clinical trials, due to the extreme rarity of the syndrome. However, the effectiveness of triple therapy strategy (glucocorticoid pulses, anticoagulation, intravenous immunoglobulins and/or plasma exchange) has been retrospectively established after analysing the "CAPS Registry" data showing a reduced mortality compared to other strategies that did not use plasma exchange, intravenous immunoglobulins or both ($p=0.04$)[10].Surgical treatment with supra-renal aortic clamping, renal artery thrombectomy and endarterectomy with aorto-bifemoral bypass is also of note for its complexity & high risk. Nevertheless, plasma exchange with angioplasty and balloon dilatation showed good outcome in our case.

Conclusion:

Antiphospholipid syndrome is a disease primarily affecting females and catastrophic antiphospholipid syndrome is a rare life-threatening condition that stands as clinical challenge in front of the treating physicians.It is still more challenging to diagnose the condition when dealing a male patient without any significant past illness. A high level of suspicion and multidisciplinary aggressive treatment approach can save the patients

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Case Report

PANCREATICO-PLEURAL FISTULA FROM DIAGNOSIS TO MANAGEMENT

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Abstract

Pancreatico-pleural fistula (PPF) formation occurs rarely in about 1 % patients with acute pancreatitis and 0.4 % patients with chronic pancreatitis. PPF is an abnormal communication between pancreatic duct and pleural space. PPF resulting in a chronic pleural effusion is a rare complication of pancreatic duct disruption. We describe the presentation and management of a young male with PPF. Pleural fluid amylase concentration and contrast computed tomography were sufficient to establish the diagnosis. The initial management of these fistulas should be conservative, by tube thoracostomy and suppression of pancreatic secretion.Complete diversion of the pancreatic juice into the gastrointestinal tract by longitudinal pancreatico-jejunostomy has been an effective surgical option leading to fistula closure.Here we report a case of massive left sided pleural effusion secondary to PPF due to chronic pancreatitis.

Introduction

The pancreatic pseudocyst is a frequent complication of both acute and chronic pancreatitis. It is defined as a localized liquid collection with a non-epithelial wall (fibrous and granular tissue) containing high levels of pancreatic enzymes. A posterior rupture could cause a communication in the left diaphragm with the formationofafistulaandpleural effusion. Patient's symptoms may range from asymptomatic to progressively installed severe dyspnea, requiring thoracocentesis. PPFis anextremely rare complication of acute or chronic pancreatitis, usually being treated by surgery. PPF's present clinically as chronic hemorrhagic pleural effusions high in amylase and lipase. These fistulas occur secondary to pancreatic duct disruption, with pancreatic secretions reaching the pleural space by sinus tract or communicating pseudocyst. Diagnosis is often delayed as the condition is rare, and the clinical features of pancreatitis may be absent. The finding of a significantly elevated pleural fluid amylase is diagnostic, but this assay is not routinely performed on pleural fluid drained at thoracocentesis. We herein report on PPF occurring in a young male patient and discuss the diagnosis and management of this unusual complication.

Case Report

A 28-year-old male patient presented to the medicine OPD with chief complains of shortness of breath, left sided chest pain and dyspnea since last 2 months. Patient is a chronic alcoholic with no history of any other co-morbidities. On general examination, patient was conscious, oriented, P/R-102/min, BP- 120/80mmHg, R/R- 28/min, Temp-98.4!.On systemic examination, there were decreased chest movements on the left side of chest with complete absentbreath sounds on the left side in all areas. Examination of other systems (CVS & GIT) were normal. Routine blood investigations showed total leucocyte count-14000/µl(neutrophils-79%, lymphocytes-10.8%), Hb-12.7gm/dl, platelet count-1,67,000/µl, Esr-116, serum LDH-148U/L.Electrocardiogram showed sinus tachycardia. With the clinical suspicion of left sided pleural effusion, we had done chest x-ray which showed massive left sided pleural effusion (Fig.1). We had done both diagnostic and therapeutic pleural fluid analysis in our patient which

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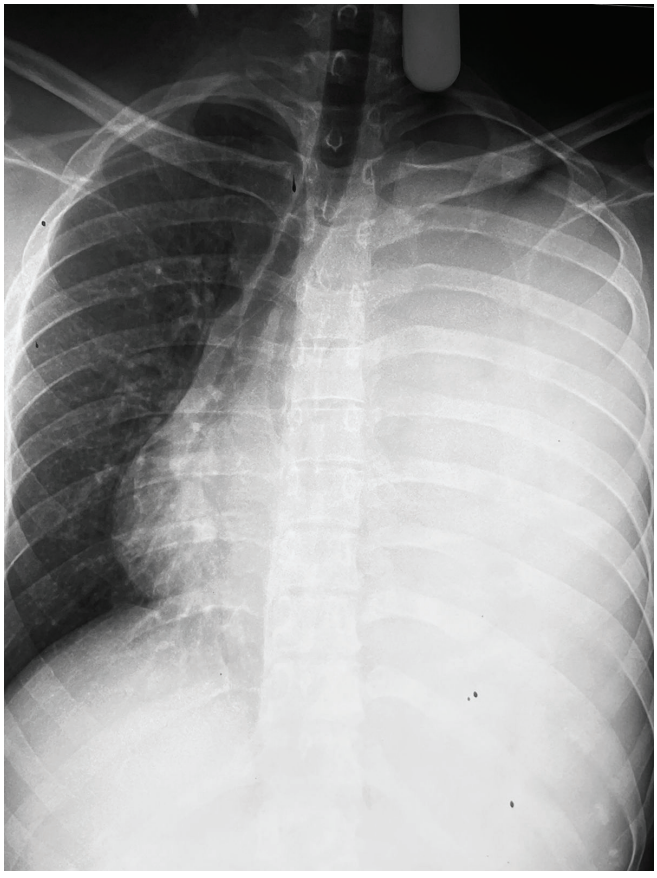
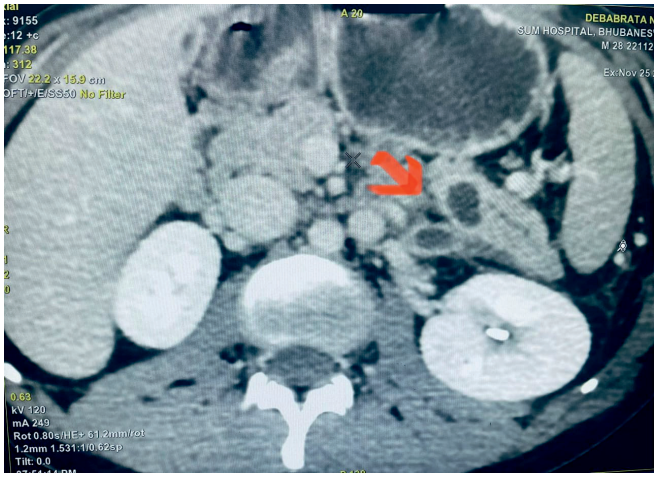
showed dark brownish black color hemorrhagic exudative fluid (Fig. 2) with elevated levels of amylase and lipase and the absent neoplastic cells. Later on, blood sample was sent for amylase and lipase, both of which came to be significantly elevated. With provisional diagnosis of pancreatitis induced pleural effusion we had done CT abdomen and thorax in our patient which showed features suggestive of chronic pancreatitis with disconnected duct syndrome in pancreatic tail leading to a small posterior perinephric walled off collection and a tubular pancreatico- left pleural space fistulous communication (Fig. 3). Patient was then planned for ERCP and Pancreatic Duct stenting along with Intercostal tube drainage. The patient tolerated the procedure without any complications. Patient was kept on IV antibiotics post procedure for 7 days and then was discharged with oral antibiotics with ICT drainage in situ.Patient was planned for corrective surgery for PPF and distal pancreatectomyon next visit after 2 weeks with removal of ICTD after clinical improvement.

Discussion

Rarely, pancreatic juice from a disrupted pancreatic duct drains into the thoracic cavity by a fistulous communication, creating a PPF.[2]This condition,



most commonly associated with alcoholic pancreatitis in adults, causes dyspnea, chest pain, and a serosanguinous pleural effusion.[1-4]Only rarely do patients have abdominal pain.[1-3-5]Focal ductal inflammation, however, does not fully explain why PPF is associated with chronic alcoholic pancreatitis in 80% of cases.[1,4]PPFs are associated with pseudocysts in 69% of adult cases.[1]Investigation of the pancreatic ductal system and pseudocyst collection by CT scan and ERCP is recommended before operative treatment.[1,3]Magnetic resonance pancreatography can also been used in adult patients.[7] Patients with PPF should first be treated by chest tube drainage, parenteral nutritional support, and pharmacological inhibition of pancreatic secretions. This conservative approach has produced resolution of PPF in 50% to 60% of adult cases.[1,2,6]However, the previously mentioned option must be abandoned in favor of operative management if persistent chest drainage causes compromise of nutritional status. The patient described in Case had significant nutritional depletion, consequences which may have been avoided by early surgical intervention.



Conclusion

Corrective surgery for PPF should be tailored to address underlying pancreatic pathology. Distal ductal and parenchymal disease can be treated by distal pancreatic resection incorporating the pseudocyst where present. Proximal ductal pathology, however, requires effective ductal drainage by longitudinal pancreaticojejunostomy. The ultimate aim of this procedure is total routing of pancreatic secretions away from the pleural cavity into the gastrointestinal tract, with consequent closure of the PPF.

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Case Report

RARE PRESENTATION OF GRAVES' DISEASE WITH PANCYTOPENIA

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Abstract

Pancytopenia is a serious hematological disorderthat, apart from primary marrow failure, maybe secondary to several other conditions. Theseinclude infection, radiation, drugs (especially cytotoxicdrugs), and certain metabolic diseases. Among thelatter, the association between hyperthyroidism andpancytopenia is reported least commonly.The pathogenesis of such an association is not clearly understood,though hypotheses of immunogenic and toxic mechanisms have been advocated. The response of pancytopenia to treatment of hyperthyroidism confirms the casual relationship and may preclude any other treatmentmodalities of pancytopenia.Accurate diagnosis and appropriate tailored therapy arechallenging due to the variegated causes of pancytopenia and the potential hematological toxicity of antithyroid drugs (ATDs).Our case provides clinical, laboratory and histo-pathological features of Graves' hyperthyroidism-related pancytopenia with aview to improve the knowledge of this rare hematological complication and assisting in the decision-making process regardingtherapeutic options.

Introduction

Graves' disease (GD) is the most common cause of hyperthyroidismin iodine-replete geographical areas [1]. Since in about50% of GD patients the characteristic clinical features may belacking [1], other possible findings could help diagnose GD.Among the extrathyroidal laboratory findings suggestive ofGraves' hyperthyroidism, hematologic and liver blood test(LBT) abnormalities may be observed in patients with GD[1–3]. Neutropenia is the hematologic disorder most often associatedwith GD, while anemia and thrombocytopenia occur lessfrequently [1]. Pancytopenia secondary to hyperthyroidism isextremely rare. In addition, mild-to-moderate transaminase elevationsare commonly reported in untreated GD patients [1, 3].According to the American Thyroid Association (ATA)guidelines [4], neutropenia and elevated serum transaminasescould be regarded as a sign of Graves' hyperthyroidism and atthe same time a relative contraindication to use antithyroiddrugs (ATDs).When managing Graves' hyperthyroidism, cliniciansshould keep in mind all the other etiologies of neutropenia. Therefore, in a hyperthyroidism scenario,the findings of leucopenia, neutropenia when present in the patient, constitute a majordiagnostic and therapeutic dilemma.

Case Report

A 44-year-old female patient presented to medicine OPD with chief complaint of neck swelling,weight loss for 6 months, diarrhea for 1 month and fever for 10 days. On examination P/R was 112/min; BP was 140/90mmHg;R/R was 18/min,temperature was 100ºF.Onhead-to-toeexamination, both the lobes of thyroid gland were diffusely enlarged [Right lobe - 2.9×2.6×1.0cm; Left lobe-3.2×2.6×1.0cm](Fig.1) with no nodularity. Her blood investigations showed pancytopenia[total wbc-3.64×10^3/µl,hb-7.8gm/dl,platelet count-128×10^3/µl], peripheral smear showed normocytic normochromic anemia with neutropenia. Her LFT & RFT were normal.Her thyroid profile showed picture of hyperthyroidism [FT_3 and FT_4 are elevated more than 5 times the upper normal limit(Ft_3=32.4pg/ml, Ft_4=7.77 ng/ml) with markedly low TSH level

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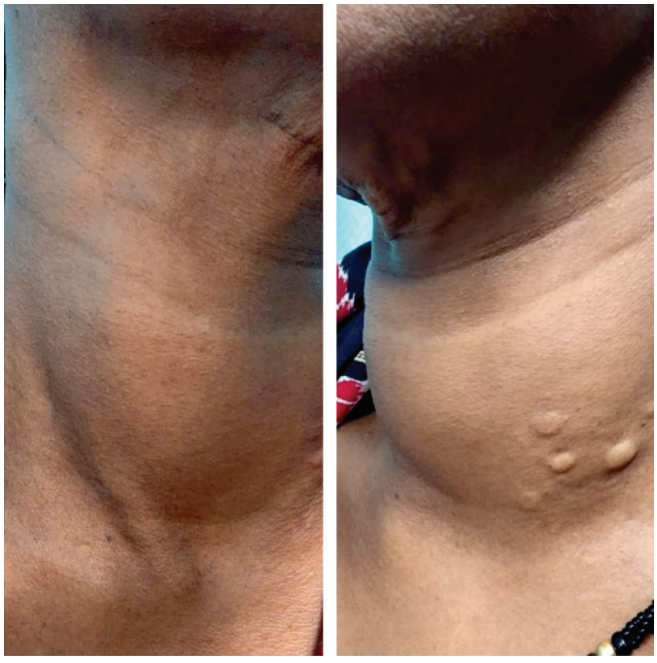

(TSH<0.005micro-IU/ml)].OnFurther evaluation for pancytopenia, her iron profile,vitamin B12,serum LDH,DCT,ICT were normal.Bone marrow study showed the picture of hypercellularity with trilineage hematopoiesis. Upper GI endoscopy was normal,2d-echo showed normal LVEF (58%) with no valvular abnormality.On this basis, we provisionally diagnosed the case to be a graves disease induced pancytopenia and we started Anti-Thyroid drug (Carbimazole 10 mg thrice daily) along with a beta blocker (propranolol 20mg twice daily). Although in this context the use of ATDs is still under debate, carbimazole therapy was startedand her CBC,thyroid profile was regularly monitored. We hadnoticed gradual resolution of pancytopenia from second week of ATD initiation and restoration of euthyroid status at 16th week. There after we kept the patient on low dose maintenance carbimazole therapy and regularly monitored over period of last 6months.

Discussion

Our literature search retrieved 464 different articles. In total,we identified 19 case reports and two caseseries [5, 6] (a total of 26 patients) regarding the occurrenceof pancytopenia in a hyperthyroidism scenario. In 29 out of 30 cases, hyperthyroidism associated withpancytopenia was due to GD.In all 29 patients with GD, hyperthyroidismoccurred as an overt disease with very elevated thyroid hormones. Clinically, pancytopenia ranged widely,from a mild to a severe syndrome: when severe, it neededsupportive care consisting of blood transfusions, prophylacticand therapeutic antibiotics, and colony-stimulating factor infusions

Regarding morphological features, bone marrowaspiration/biopsy showed three main patterns: it more often(40%) showed hypercellularity of the erythroid, granulocytic, and megakaryoblastic lineages, with arrested hematopoiesisand with or without cellular atypia; it less often (35%)corresponded to a normal marrow; in the remaining 25%, itshowed hypocellularity (aplastic anemia), in which cases pancytopeniatypically presented with severe failure of at leasttwo lines, requiring supportive and immunosuppressive cares.

Among all the reviewed cases, ATDs (methimazole,propylthiouracil, or carbimazole) were the most frequentlyused therapy (~ 80%), treating both hyperthyroidism and pancytopenia.In nine cases, radioiodine was added to ATDs asdefinitive therapy or it was early on adopted because the cliniciansdid not feel confident about using ATDs in the presenceof leucopenia [5]. In onlytwo cases, surgery was adopted as definitive therapy.

As in our case, inalmost all patients (90%), the resolution of pancytopenia(i.e., normalization of the three blood cell lines) occurredalong with the restoration of biochemical euthyroidism.

Normal thyroid hormone (TH) levels are known to becrucial for hematopoiesis in humans [7,8]. Thyroidhormone excess seems to significantly affect the proliferativepotential of hematopoietic progenitor cells (HPCs)[8]. Weitzman et al. [9] providedevidence that TRAb could bind the neutrophil TSHreceptor in order to mediate the low ANC in some GDpatients. Autoimmune/immunological mechanisms could specificallyunderlie the development of hematological abnormalitiesin a Graves' hyperthyroidism scenario.We reasonably assert that the normalization of thyroidfunction is the leading event able to abolish the underlyingmechanisms of pancytopenia. A direct immunosuppressiveeffect of ATDs on the resolution of the hematologic disorderappear to be marginal, given that other therapies (e.g., RAI,surgery) also induced pancytopenia remission.

Conclusion

Pancytopenia is an extremely rare presenting feature ofGraves' hyperthyroidism. In the context of hyperthyroidism,the clinical significance of pancytopenia ranges froma mild laboratory abnormality with no detectable consequenceto a life-threatening disorder. With careful monitoringof CBC, antithyroid drugs can be used to treat bothpancytopenia and Graves' hyperthyroidism.

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Case Report

MADRAS MOTOR NEURON DISEASE – A VARIANT OF MND

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Abstract

Madras motor neuron disease (MMND) is a rare childhood/juvenile motor neuron disease reported from various parts of southern India, the first report being from Chennai. This case report is about a young male who presented with insidious onset, a gradually progressive neurological illness characterized by bilateral sensori-neural hearing loss, wasting, and weakness of all four limbs along with bulbar paralysis. On examination, he had involvement of lower cranial nerves, tongue fasciculation, generalized amyotrophy, and bipyramidal features. Electrophysiological studies showed features of chronic denervation. A provisional diagnosis of MMND was made. MMND resembles Brown–Vialetto–Van Laere (BVVL) syndrome and some of the other complex childhood motor neuron disease syndromes, like Boltshauser syndrome, Nathalie syndrome, and Fazio–Londe syndrome. Early diagnosis of BVVL, which is a riboflavin transporter deficiency, is essential, as it is fully responsive to high-dose riboflavin supplementation. In BVVL syndrome, a female predominance has been documented (1:5), while in MMND, an equal distribution is noted. In BVVL, at least half of the reported cases are familial whereas in MMND most of the cases are sporadic. In BVVL, lower motor neuron signs in the limbs are infrequently present and pyramidal signs are rare, whereas in MMND lower and upper motor neuron signs are seen in the majority of the patients. Third, fifth, or sixth cranial nerves are never noted to be affected in MMND, but they may rarely be involved in BVVL. The etiopathophysiology of MMND is still unclear and supportive or symptomatic therapy forms the mainstay of treatment of this orphan disease.

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Introduction

Madras motor neuron disease (MMND) is a unique childhood motor neuron disease which was described in 1970, was a name given by Meenakshisundaram et al. to a group of patients from Madras located in Southern Indiaand has a peculiar set of clinical features. Its exact etio-pathogenesis still remains elusive, even after 50 years of its recognition. It is classified as an orphan disease due to the small number of cases reported so far.

The disease manifests in young individuals with clinical features of thin habitus, wasting and weakness predominantly of distal muscles of the limbs, involvement of facial and bulbar muscles, pyramidal dysfunction and associated sensori-neural hearing impairment. The disease was described as a sporadic disorder with benign course. We hope that this case report will throw more light on this rare disease as well as its close differentials.

Case

A 22yr/M came to medicine OPD with a chief complaint of decreased hearing in both ears since 5 years, progressive weakness in B/L lower limbs since 3 years and B/L upper limbs since 2 years involving both the proximal and distal muscles. On examination, he was conscious, oriented, P/R-72/min, R/R-18/min, BP-120/80 mmHgand afebrile. Higher mental functions were normal. On CNS examination patient had B/L incomplete closure of eyes,Bells phenomenon (Fig.1),drooling of saliva with bilateral LMN type of facial palsy,tonguefasciculations, nasal regurgitation of voice, bilateral palatal movements were diminished along with depressed gag reflex, atrophy and fasciculations seen in all the muscles of 4 limbs including small muscles of hand (Fig.2) and foot withB/L plantar extensor.Pes cavus and hammering of all toes were evident in both feet (Fig.3).All the deep tendon reflexes are

exaggerated. Rinnes test came positive in both the ears. Audiometry showed B/L severe SNHL. MRI brain with screening of whole spine is normal. EMG showed diffuse anterior horn cell disease. Nerve conduction study showed decreased compound muscle action potential (CMAP), prolongation of distal motor latency, and slowing of conduction velocity in median, ulnar and peroneal motor nerves. Sensory potentials are normal. No cerebellar or extrapyramidal features were present.All routine blood investigations were normal. The cardiac evaluation was normal.All the clinical features as well as investigations pointed to a differential diagnosis of MMND versus BVVL syndrome.

Discussion

In this present report we describe a case of MMND patient who had the classical features of MMND/MMNDV with progressive hearing impairment associated with progressive involvement of bulbar nuclei, severe muscle weakness and wasting due to anterior horn cell involvement, with pyramidal dysfunction.

MMND was initially described in 1970, by Meenakshisundaram et al. after analyzing the clinical features of 14 patients. This disease entity was described in patients from erstwhile Madras with clinical features of anterior horn cell involvement, facial and bulbar palsy, pyramidal features, and sensorineural hearing impairment.[1–3]

Gourie Devi et al. from NIMHANS, Bangalore presented the clinical findings in 12 cases with juvenile-onset motor neuron disease. The striking clinical and electrophysiological features of these patients were similar to the Madras cases. The male: female ratio was 1:1 in the NIMHANS report while it was 4:1 in the Madras report. One-third of Bangalore patients had polyminimyoclonus in fingers.[4,5]

Reduced citrate and high pyruvate values have been reported in patients with MMND.[6]

Electrocochleography and brain auditory evoked potential done on these cases suggest loss of auditory nerve fibers and/or sensory cells in the spiral ganglion as the probable cause for the sensorineural deafness.[7]

MMND is a very rare entity with only 150 reported cases all over the world, most of whom are from South India. Madras motor disease was described initially as a sporadic form of benign childhood motor neuron disease. Several reports of familial MMND were described a few years later with an autosomal recessive form of inheritance. The patients who had optic atrophy as an additional feature were classified to have MMND variant, which constitutes more than a quarter of the total reported cases of MMND.

BVVL syndrome, Boltshauser syndrome, Nathalie syndrome, and Fazio–Londe syndrome are the common anterior horn cell diseases mimicking MMND.

BVVL syndrome has similar clinical features as that of MMND, but is caused due to mutations in SLC52A2 (encoding RFVT2) or SLC52A3 (encoding RFVT3) which produces riboflavin transporter defect that improves with riboflavin therapy thereby preventing the progression of this rare neurodegenerative condition.[8,9] In MMND, a combination of lower and upper motor neuron signs are seen and third or sixth cranial nerves are never affected differentiating it from BVVL.[10]

In BVVL syndrome, females are commonly affected (1:5) and most cases are familial whereas in MMND most of the cases are sporadic. Some case reports hypothesize the inflammatory pathogenesis in MMND. An unknown expanded repeat of C9ORF72 may possibly play a role. However, a combination of genetic and environmental factors is thought to play causative roles. The familial cases of MMND may probably share a common biological pathway with BVVL. [11]

Conclusion

There is no specific treatment for MMND. However, supportive and symptomatic therapy like hearing aids may help these patients. The patients with MMND usually have a normal life span.Our patient was advised genetic screening for SLC52A2 and SLC52A3 genes to rule out BVVL as high-dose riboflavin supplementation can show improvement in BVVL.

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Case Report

A RARE CARDIAC INVOLVEMENT IN SCRUB TYPHUS

Surg. Capt. Dr. S. Dutta[1], Sanskriti Dutta[2]

Introduction :

A 50 year old previously healthy female was admitted with fever, thrombocytopenia and developed acute heart failure in hospital and had to be shifted to ICU.

Objective Method :

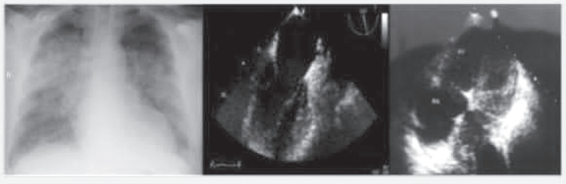
Her Weil-Felix test was strongly positive & IgM for Scrub Typhus also returned positive. Bedside 2-D echo revealed severe Mitral Valve regurgitation. Investigations revealed very high BNP, right heart enlargement, bilateral pulmonary edema.

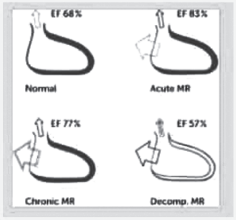
Result :

She was started on loading dose of i/v Doxycycline (200 mg) followed by 100 mg b.i.d i/v Torsemide with supportive therapy to which there was dramatic improvement & HF and MR resolved completely within 1 week. Thus in this case, Scrub Typhus infection presented as acute MR & Right heart failure and the cause was confusing at the outset.

Conclusion :

Cardiac involvement is not very rare in scrub typhus & needs to be duly considered while dealing with acute febrile illness with sudden onset of acute heart failure.





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Abstracts

Abstract

STUDY ON PRIMARY NON-SMALL CELL LUNG CANCER WITH SPECIAL REFERENCE TO IMMUNOHISTOCHEMISTRY, EGFR MUTATION AND KRAS MUTATION IN A TERTIARY CARE HOSPITAL

Nrusigha Ch Dash, Manoranjan Dash, Biswabi Kash Mishra, Bayyaram Rambhoopal Reddy, Bayyaram Rambhoopal Reddy

Background:

In lung cancers the use of immunohistochemistry is recommended for those cases in which diagnosis is unclear between adenocarcinoma and squamous cell carcinoma. This study is to know the different mutations in NSCLC of the lungs in our tertiary care centre.

Aims & Objectives:

To study clinical and radiological correlation with different histological types of primary lung cancer with refence to immunohistochemistry TTF-1 and p63 and to detect EGFR, KRAS mutation.

Material & Methods:

The study was conducted in a tertiary care centre of Odisha during the period from Sept. 2019 to Sept. 2021. 40 patients of age >18yrs with strong clinical suspicion and/or chest radiographic diagnosis of primary lung cancer are included in this study from IPD of Pulmonary Medicine Department, SCB MCH, Cuttack after considering inclusion and exclusion criteria.

Results:

Most of the cases were in the 5th & 6th decade of age with mean age of 58.8yrs. Most males (57.5%) in the study were smoker and all females were Never-Smokers. EGFR mutation found in 7 cases out of 20 Adenocarcinoma (35%) and 2 cases out of 19 Squamous cell carcinomas (10.5%). K-RAS mutation was detected in 1 adenocarcinoma patient (5%).

Keywords:

NSCLC- non-small cell lung cancer, adeno carcinoma, squamous cell carcinoma, EGFR- epidermal growth factor receptor, KRAS- Kristen rat sarcoma.

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A SERIES OF 3 CASES OF ORTNER'S SYNDROME-A RARE ENTITY IN MODERN ERA

Dr Shanigarapu Vikram, Dr Rina Mohanty

Background:

Hoarseness of voice is a very common symptom seen in the ENT outpatient Department and is very rare in cardiac patients. Hoarseness of voice secondary to recurrent laryngeal nerve paralysis (Ortner's syndrome) is an uncommon manifestation. This case series illustrates three cases of cardio vocal hoarseness.

Materials and methods:

Three cases of hoarseness of voice in a case of mitral stenosis, pulmonary hypertension secondary to interstitial lung disease, PAH in association with portal hypertension presented to medicine OPD. Patients were evaluated in detail and Video laryngoscopy carried out in all 3 patients, found to have recurrent laryngeal nerve palsy.

Conclusion:

Ortner's syndrome also known as cardio vocal syndrome is a rare condition which may be secondary to many cardiopulmonary disorders. It would be pertinent to look beyond the larynx to search for the cause of vocal cord palsy in patients presenting with hoarseness of voice androutine cardiology workup to rule out any cardio-mechanical causes of vocal cord palsy.

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MKCG MCH, Berhampur

Abstract

ASSOCIATION BETWEEN ASCITIC FLUID FERRITIN AND LDH IN NON-MALIGNANT & MALIGNANT CASES

Dr. Ayushi Patra[1], Dr. Pratima Kumari Sahu[2], Dr. Subrat Pradhan[3]

Introduction:

Malignant ascites accounts for about 10% of all cases of ascites.For further diagnostic and therapeutic procedures, it is important to differentiate between malignancy-related ascites (MRA) and non-malignant ascites (NMA). Due to poor sensitivity, cytology is not a good screening tool for malignant ascites. So, simple tests on ascitic fluid, which can be used to differentiate between malignancy-related ascites (MRA) and non-malignant ascites (NMA) are vital. Even though Lactate Dehydrogenase (LDH) is a cytoplasmic marker, it has also been used as a tumour marker.Also,Ferritin is used as a tumour markerits's secretion is increased by malignant cells & hepatocellular necrosis by liver metastasis.In this study we try to find an association between ascitic fluid ferritin and LDH in malignant and non-malignant cases of ascites.

Method:

60 patientsbetween 18 to 62 yearswith ascites(30 malignant and 30 non-malignant) were evaluated for ascitic fluid Ferritin and LDH over a period of 3 months.Ascitic fluid ferritin levels were estimated by chemiluminescence and LDH by spectrophotometry with normal reference ranges of 13-400 ng/mL and313-618 IU/L respectively.

Result:

The mean LDH in ascitic fluid of non-malignant cases were found to be 58.8IU/Land in malignant cases was 403.5IU/L. Mean ferritin in ascitic fluid of non-malignant cases was 329.3ng/mL& in malignant cases was 1329.4 ng/mL which was highly significant($p<0.001$).

Conclusion:

Study showed significant association between ferritin concentration and LDH level in malignant ascitic fluid as compared to non-malignant ascitic fluid.

Keywords:

Ascitic fluid,LDH,Ferritin.

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OCCURRENCE OF SICK EUTHYROID SYNDROME IN ST ELEVATION MYOCARDIAL INFARCTION AND THEIR PROGNOSTIC SIGNIFICANCE

Dr Mitranki Rathi, Dr Sri Prasad Mohanty, Dr Mitranki Rathi

Introduction:

Sick euthyroid syndrome (SES) is defined as an abnormal finding of thyroid function tests that occur in non-thyroidal illness (NTI) without preexisting hypothalamic-pituitary or thyroid gland dysfunction. SES has been demonstrated in acute myocardial infarction and a correlation between severity of cardiac damage and degree of change in thyroid hormones were postulated.

Objectives:

Aim of the study is to find out the occurrence of SES in patients with ST elevation MI (STEMI) and to evaluate whether the presence of SES in these patients have any prognostic significance in determining severity of AMI.

Methods:

This is a prospective study carried out at MKCG MCH, Berhampur. Duration of the study was from NOV 2020 to OCT 2021. 50 patients were taken into the study.

Results:

42% of STEMI patients had SES. Patients who presented with KILLIP 1, the occurrence of SES was 25%, In KILLIP 2 - 59%, in KILLIP 3 - 67% and KILLIP 4 - 100%. Patients who presented with LVEF<50%, the occurrence of SES was 60% and who presented with LVEF>50% was 24%. In SES positive patients mean duration of ICU stay was 4.5 days compared to SES negative patients in whom duration was 3.5 days.

Conclusion:

Occurrence of SES is common in acute STEMI patients and the SES positivity rate is proportional to the severity of cardiac damage.

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MKCG MCH, Berhampur

Abstract

A CASE OF SUBCUTANEOUS SARCOIDOSIS

Dr. Priya Jena, Dr. Satya Ranjan Sethy, Dr. Priya Jena

Sarcoidosis is a multisystem granulomatous disease that can affect any combination of organ systems. Common presentations usually involve pulmonary system. But 20 % are atypical manifestations. And they are at a high risk for systemic disease. Here we present an elderly female with Type II diabetes mellitus and hypothyroidism who presented with subcutaneous nodules on her bilateral upper extremities and a rash on both lower extremities. The patient was misdiagnosed as Sweet syndrome. Investigations revealed high calcium and ACE levels.

Rheumatologic studies were unrevealing except for an elevated ANA.

Biopsy of the nodules revealed non-caseating granulomas and imaging of the upper limbs together gave the result of subcutaneous sarcoidosis.

In retrospect, the patient's initial diagnosis of Sweet Syndrome was likely Sarcoidosis. However, due to the nebulous pathology and scarcity of subcutaneous sarcoidosis, this diagnosis was overlooked. As in frequent as they are, a high clinical suspicion is the key to diagnosing atypical presentation of such diseases. Early detection and thorough examination can help further in the management of patients.

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MKCG MCH, Berhampur

A CASE OF BEHCET'S DISEASE WITH DRY GANGRENE

Dr. Debashish Debta, Dr. Lalatendu Mohanty, Dr. Debashish Maikap,Dr. Sarthak Mishra, Dr. Harsha Burgula.

Introduction

Behcet's is a systemic variable vessel vasculitis. It presents as recurrent orogenital ulcers, skin lesions (acne, erythema nodosom),eye lesions (pan uveitis). Dry gangrene has rarely been reported.

Case Report

A patient complaint of painful oral ulcers, blackish discoloration of toes of both the foot for15 days. He also has H/o Painful genital ulcers 1yr. back. No history of Raynaud's, cough, breathlessness, arthritis.

CBC,LFT,KFT,Chest xray and Urine analysis was Normal.Anti-MPO,Anti-PR3 were Negative.Acute Phase Reactants were Elevated (CRP-102.5,ESR -80), ANA in titre -1:80.HLA Typing was Positive HLA B7(+),HLA B44 (+).Patient was diagnosed to have Behcet's Syndrome(Acc. to ISG criteria) and managed with Cyclophosphamide.Patient was then treated with 1mg/kg Prednisolone and had clinical improvement with oral and genital ulcer resolving and no progression of gangrene.

Discussion

Behçet's syndrome is relatively rare vessel vasculitis in the Indian population with prevalence of 1% in India. Despite its rarity, it is critical to consider vasculitis as one of the differential diagnoses in any young patient with thrombotic events.

Conclusion

Behcet's – a rare variable vessel vasculitis in India which can also present with dry gangrene. A High index of suspicion in patients with muco-cutaneous lesion result in early diagnosis, management and prevention of complication. After analysing the case it was found that dry gangrene was a rare manifestation that can be seen in the clinical spectrum of Behcet's.

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KIMS, Bhubaneswar

Abstract

PYOMYOSITIS AN ATYPICAL PRESENTATION

Dr. Shayri Chakraborty, Dr. Tushar kantee Behera, Dr Shayri Chakraborty

Background:

Pyomyositis is an infective condition with primary involvement of skeletal muscles manifesting as single or multiple intramuscular abscesses. Originally reported in tropical areas of Asia and Africa. Male predominance is usually seen and more common in younger age group and previous studies have shown it usually involved largest muscle groups located around the pelvic girdle and lower extremities. Most common pathogen: staph aureus. However, culture reports may be sterile. We presented atypical case report.

Case Report:

A 62y diabetic female on OAD presented with fever for 7 days and pain over the forearm near left elbow joint and over the left palmar aspect handwith history of chronic knee pain. No history of similar complaints in the pastin past. She was diagnosed with RA and prescribed DMARDS to which she was non-compliant on presentation to OPDcomplaint.

Clinical examination:

Diffuse swelling over the lateral aspect of upper one third of the left forearm with tenderness underlying compartment felt firm. ESR CRPQ TLC: RAISEDRA Factor was negative. HbA1c was 11.8, Knee joint radiography :bilateral OA

Diagnosis pyomyositis was made based on ultrasound findings, with supportive history pathological evidence of pyogenic abscess, 2 cultures done were found to be sterile, blood culture also sterile.

Result:

Incision and drainage done with healing by secondary intention and amoxicillin clavulanic acid 625 with tab Metronidazole400 TDS for 1month patient discharged with follow up at 1 month showing complete heal of abscess site.

Conclusion:

PyomyositisPyomyosistis presents without classical signs of abscess I.e., Local rise of temperature and swelling isswelling and is an important differentation to consider in cases presenting with muscle pain with fever. Upper limbs though uncommonly reported might also be involved.

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ARTERY OF PERCHERON TERRITORY INFARCT: A RARE AND UNUSUAL PRESENTATION

Dr Sandipan Kuila[1], Dr Bijay Kumar Behera Dr Aradhana Sahoo, Dr Sandipan Kuila

Backgroound:

Artery of percheron is an anatomical variant of posterior cerebral circulation which arise from Posterior Cerebral Artery and supply medial surface of bilateral Thalamus and rostral part of midbrain. Infarction of these area leads to altered mental status, vertical gaze palsy, memory impairment, oculomotor disturbances etc.

Case Report:

A 40 years old female patient presented with chief complains of sudden onset of dizziness, disorientation and inability of open both eyes for 2 days. On examination, bilateral ptosis present, upward and downward gaze of both eye lost, abduction and adduction of right eye preserved but adduction of left eye lost. Pupil of right eye normal and reactive to light but pupil of left eye is dilated and non- reactive to light. NCCT Brain reveals no abnormality. MRI brain shows T2/FLAIR hyperintensity with diffusion restriction in medial thalami (Left>Right) and midline of midbrain. MR Angiography and MR Venogram is normal.

Differential Diagnosis:

Top of basilar artery syndrome, Bilateral internal cerebral vein thrombosis.

Conclusion:

Acute infarct in artery of percheron territory is rare and may present with unusual clinical features.

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Abstract

A CASE OF DIFFUSE ALVEOLAR HEMORRHAGE & NODULAR LIVER LESIONS IN MULTIPLE MYELOMA

Dr Dibyajeet Das, Dr Jagannath Sarangi
Dr Satya Ranjan Sethy

Context:

Multiple Myeloma(MM) is a malignant plasma cell disorder with Nodular lesions of liver being a rare condition. Pulmonary involvement in the form of DAH(Diffuse alveolar hemorrhage) is a rare condition which may be due to Pulmonary Renal Syndrome, IgA deposition in alveolar walls or treatment associated.

Case Report:

A 75 years old male presented with complaints of dyspnoea and B/L pedal edema,on routine examination showed Normocytic anemia,roulex formation, leukoerythroblastic blood picture with shift to left,elevated RFT,CRP,LDH.On HRCT thorax- B/L multiple ground glass opacification ,lytic lesions over vertebrae, X-ray-lytic lesions of skull & USG abdomen,multiple nodular SOLs seen.Urine for Bence Jones protein was negative & on Serum electrophoresis,M band was absent,but a dense band noted near the gamma region,SFLC assay,Immune electrophoresis and Bone marrow aspiration was planned,but the patient succumbed with the illness. IV Dexamethasone was during the course.

Conclusion:

DAH ,usually seen in autoimmune disorders can be a feature of MM & Multiple nodular SOLs of liver mimicking Metastatic lesions can be seen in MM, So early diagnosis & treatment is required for better outcome.

Keywords: Multiple Myeloma, Diffuse alveolar hemorrhage, nodular lesions,liver,Pulmonary Renal Syndrome,Ground glass opacification,lytic lesions,Leukoerythtoblastic blood picture,Bence Jones Proein,Serum electrophoresis.

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MKCG MCH,Berhampur

A CASE OF BURKITT'S LYMPHOMA IN A SICKLE CELL DISEASE PATIENT

Dr. Ankeet Biswas, Dr. Sagnika Tripathy

Introduction

Burkitt's lymphoma constitutes <1% of Non-Hodgkin's Lymphoma and 30% of childhood Non-Hodgkin's Lymphoma.It has a fast doubling rate of <24hours and originates from germinal centre.It is present in 3 forms-Endemic(EBV associated),Sporadic and Immunodeficiency associated.A case of Burkitt's lymphoma with leukemic spread in a patient of homozygous sickle cell disease is being reported.

Case Summary

32 year old male presented with fever for 1 month,pain and swelling over right inguinal region for 1 month,swelling in posterolateral part of neck for 15 days,pain over hands and legs for 3 days.Patient was a known case of Sickle cell disease on Tablet Hydroxyurea and Tablet Folic acid but discontinued medication for 2days.Patient had history of 3episodes of blood transfusion previously.

O/E:Enlarged Axillary,inguinal and posterior triangle lymphnode are found. On investigation –There was microcytic hypochromic anaemia.On CECT abdomen retroperitoneal lymphnode was present.There was microcytic hypochromic anaemia. Surgical biopsy from abdominal lymphnode showed high grade NHL with IHC positive for CD 20,PAX 5,CD 10,c-myc, and negative for CD 3,Tdt,Bcl 2.MIB index 90%.

It was diagnosed as Burkitt's lymphoma stage IV with involvement of left parietal and occipital calvaria. DA EPOCH-R chemotherapy with intra thecal methotrexet was started.

Conclusion

Burkitt's lymphoma is extremely rare in a case of sickle cell disease and it remains unclear whether it is due to immunosupression by hydroxyurea or the disease persay.However early treatment and CNS prophylaxis are crucial.

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VIMSAR, Burla, Sambalpur

Abstract

TUBERCULOMA: A MASQUERADER OF CNS DISEASES

Dr. Choudhary A, Dr. Mishra P, Dr. Partro S, Dr. Pattnaik S, Dr. Nayak S, Dr. ChollangiS, Dr. Sharma S

Introduction:

In India, Tuberculomas account for 20% of all manifestation of CNS TB.They constituted 30%of intra cranial space occupying lesions (ICSOL) in India before the advent of ATT now with the use of ATT,they still constitute upto 4% of ICSOLs.

Case Report:

We present a case of 21 year old male with complain of fever and headache since 3 days and vomiting since 2 days with no past history of Pulmonary TB. On further evaluation, neck rigidity, lethargy with irritable mood was present . Patient experienced an episode of GTCS at 2 AM in night during the course of hospitalization in ward. NCCT head showed ill definedisodense lesion in right frontal lobe. NCCT thorax showed few prominent mediastinal nodes. NCCT Abdomen showed abdominal lymphadenopathy. Quantiferon Gold (IGRA) test was positive. Thus the diagnosis of cerebral tuberculoma was made. ATT with Dexamethasone schedule was started and recovery was seen.

Discussion:

CNS TB arises due to hematogenous dissemination of M. Tb. Presentation includes:meningitis,cerebitis and tuberculoma.Tuberculomasare conglomerate caseous foci that form within brain parenchyma.

Conclusion:

This case presented with no symptoms of pulmonary infectionand there is an underreporting of such cases. Also, Tuberculomashould be considered in differential diagnosis of Intracranial Lesions with diseases such as lymphoma ,neurocysticercosis, pyogenic abcess as it has masquerading features with these.

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KIMS, Bhubaneshwar, Odisha

DIETARY MANAGEMENT OF DIABETES MELLITUS – A MICRO LEVEL STUDY

Sonali Tripathy

Diabetes mellitus (DM) is a disease caused by deficiency or diminished effectiveness of endogenous insulin. It is characterized by hyperglycaemia, deranged metabolism and squealed predominantly affecting the vasculature. The term diabetes mellitus includes several different metabolic disorders that all, if left untreated, result in abnormally high concentrations of a sugar called glucose in the blood. Diabetes mellitus type 1 result when the pancreas no longer produces significant amounts of the hormone insulin, usually owing to the autoimmune destruction of the insulin-producing beta cells of the pancreas. Diabetes mellitus type 2, in contrast, is now thought to result from autoimmune attacks on the pancreas and/or insulin resistance. Other forms of diabetes mellitus, such as the various forms of maturity onset diabetes of the young, may represent some combination of insufficient insulin production and insulin resistance. Diabetes management are to prevent or treat the many complications that can result from the disease itself and from its treatment. This is a cross-sectional study with 100 Diabetic people. The study carried out by investigating patient's background, medical past history, physical examination, nutritional and lifestyle assessment, physical activity assessment, medical and nutritional problems associated. This study was on pure interview method of one to one. An increased risk for developing diabetes is associated with Overweight and obesity; abdominal obesity; physical inactivity; and maternal diabetes. It is probable that a high intake of saturated fats and intrauterine growth retardation also contribute to an increased risk, while non-starch polysaccharides are likely to be associated with a decreased risk. From existing evidence it is also possible that omega-3 fatty acids, low glycaemia index foods and exclusive breastfeeding may play a protective role, and that total fat intake and Tran's fatty acids may contribute to the risk. A major set of patients with more than 7 to 10 years Diabetic period are prone to have secondary complication like Nephropathy, Neuropathy, Retinopathy, Cardiac issue, Foot complication, Gastroparesis, HTN, DKA, Skin complication and Stroke. In the study some patients are there, who are having 2-3 complication at time. Based on the strength of available evidence regarding diet and lifestyle in the prevention of diabetes, it is recommended that a normal weight status in the lower BMI range (BMI 21–23) and regular physical activity be maintained throughout adulthood; abdominal obesity be prevented; and saturated fat intake be less than 7% of the total energy intake. So, finally a patient can increase his or her lifespan by adding balanced diet, physical activity and medication as per the doctor. Keeping these facts in mind the present research is designed to study the "Dietary Management of Diabetes Patients – A study in CuttackCity".One hundred diabetes patients of different age groups were selected randomly from "LIFE SPAN" (Diabetes &Cardiometabolic Clinic).

Keywords : Diabetes mellitus, hyperglycaemia, vasculature, metabolism, DKA, HTN.

Clinical Dietician

Abstract

METHEMOGLOBINEMIA, HEMOGLOBINURIA, AND ACUTE RENAL FAILURE FOLLOWING INDOXACARB POISONING AN UNUSUAL PRESENTATION

Dr. Kamal Kumar Meher, Dr. Athira T K

Introduction:

Indoxacarb is an oxadiazine insecticide that is considered a safe substitute for organophosphates. Only a few cases of indoxacarb poisoning have been reported so far. Here we report a case of indoxacarb poisoning with methemoglobinemia, hemoglobinuria, and acute renal failure.

Case Report:

A 27 year old male presented to our emergency department 7 hours after consuming an insecticide named PLETHORA(INDOXACARB+NOVALU). On presentation patient was conscious, cyanosed with oxygen saturation of 76% in room air, which did not improve much after oxygenation. On arterial blood gas analysis pt had low SaO_2, though the PaO_2 was high and freshly drawn blood samples were chocolate brown in colour which led to our suspicion of methemoglobinemia. On the following day pt developed dark red coloured urine with out any red blood cells on microscopy and also he developed acute renal failure. He was managed conservatively in the general ward and discharged after 4 episodes of hemodialysis.

Conclusion:

Though rare, physician in emergency room should be aware of this poison and its clinical presentation. Early recognition and treatment of complication can be life saving.

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VIMSAR, Burla, Sambalpur

EFFICACY OF TRIPLE DRUGS COMBINATION OF HATG, CYCLOSPORINE AND ELTROMBOPAG IN PRIMARY SEVERE APLASTIC ANEMIA (PSAA): EXPERIENCE FROM PROSPECTIVE STUDY IN SINGLE INSTITUTION

Dr. Sandeep Kumar Prusty
Dr. M. Biswal, Dr. J.K Panda

Aim and objectives:

To study the efficacy of triple drugs combination of hATG, Cyclosporine and Eltrombopag in primary Severe Aplastic anemia.

Patients / Materials and Methods:

It is a prospective study in the Clinical hematology Dept.SCB MCH, cuttackinvolving 96 cases of PSAA.All drugs and supportive therapy are supplied by Govt. of Odisha at free of cost. **Drugs-**hATG, Eltrombopag and Cyclosporine. **Supportive therapy:** PRBC and platelet transfusion and other therapy as and when required. **Inclusion Criteria**: 1. All diagnosedcases of PSAAof >50 years of age andcases<50 years of age not willing for BMT.2. Patient willing to give informed consent. **Exclusion Criteria: 1.**Allcytopenia cases other than PSAA. **2.** Cases having cardiac, liver and renal functions impairment. **Primary end point:** Type of response at the end of 6 months. a) CR: when- Hb > 10g%, ANC>1000, TPC>100000**,** b) NR: Absence of all 3 above criteria's**.,** c) PR: Parameters in between CR and NR**.,** d) ORR: CR+PR **Evaluation:** 1. CBC - weekly for 1st month and then bi-weekly for 12 months. 2. LFT, RFT, FBS, Viral markers and electrolytes - monthly. **End of study:** All the patients followed for 12 months and evaluated and categorized according to the response as CR, PR, NR and ORR.

Result:

Largest prospective study in India utilizing triple combination of hATG (Indian Make), cyclosporine and eltrombopag. The response rate was reported at 6 months and 12 months were respectively CR 40.62%, PR 38.54%, NR 6.25%, death 14.58% and ORR79%, and CR 45.83%,PR 35.41%, NR2.08%, death 16.66% and ORR 81.25%. The optimum response was reported at the end of 1 year. Drug toxicity and interruption were in the minority of cases and manageable.

Conclusions:

The triple drug therapy of hATG, cyclosporine and eltrombopag showed better result of hematopoeisis than the double drug combination therapy hATG and cyclosporine. It implies that Eltrombopag exerts a synergistic effect and enhance thrombopoeisis, erythropoeisis and granulopoeisis.

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SCB MCH, Cuttack

Abstract

RHEUMATOLOGICAL EMERGENCY COMPLICATED WITH COINFECTIONS AND GBS

Dr.Anupam Dey, Dr. J Chandra Kanth, Dr. Arpita Dash, Dr.Srikant Behera ,Dr. Sujata Devi, Dr. Debananda Sahoo

Introduction:

This is a case of multiple etiologies with coinfection of tropical disease, SLE with rheumatological emergency and GBS challenging management of patient.

Case Reoport:

A 23yrs old female presented with complaints of low grade on and off fever for 3 months, increased in intensity in last 10 days, jaundice since 7 days,altered sensorium since 3 days, B/L lower limb weakness since 3 days, progressed to B/L upper limbs over 4 days. H/o joint pain with morning stiffness is present. Routine investigations and fever profile were sent which revealed AKI, hepatopathy with Leptospira IgM, Dengue IgM positive. CSF analysis, NCS revealed AMSAN variant of GBS.NCCT BRAIN was normal. Then rapid fall in Hemoglobin and platelet occurred along with nasal bleed and clinical deterioration requiring ICU care. Evaluation with autoimmune profile was suggestive of SLE in flare with CNS vasculitis in MRI brain. Patient was managed with pulse steroids still there is no improvementin clinical and lab parameters. Patient was treated with PLEX in view of SLE flare with CNS vasculitis and GBS. Then there was significant improvement in patient condition and patient was discharged

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Dept of General Medicine
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PULSATILE TINNITUS

Dr Madhusmita Biswal, Dr Rajendra Pradhan

Tinnitus is defined as the ringing sensation inside the ear when there is no source of external sound, which usually is noticed while being in silent surroundings. Broadly there are two types of tinnitus: somatoform tinnitus and sensorineural tinnitus. Somatoform tinnitus can be divided into vascular tinnitus, myogenic tinnitus and patulous Eustachian tube syndrome. Pulsatile tinnitus usually originates within a venous blood vessel and is known to be due to non-laminar blood flow via a vessel. It can occur in conjunction with various diseases, including exudative otitis media, anemia, thyrotoxicosis, glomus jugulare, dural arteriovenous fistula (dAVF), skull base tumor and intracranial hypertension, dAVF being the most common cause of pulsatile tinnitus resulting from vascular lesions .Pulsatile tinnitus (PT) is usually an initial symptom of dural arteriovenous fistula (dAVF), although commonly neglected or overlooked if not suspected on initial diagnostic work-up. Here we are presenting a case of pulsatile tinnitus of over a decade duration without any neurological impairment and its complete resolution after embolization with almost complete resolution of tinnitus. A 54-year-old man was admitted to hospital with insidious onset gradually progressive swooshing, pulsatile sound in the left ear for the past 10 years. Patient had been evaluated by ENT surgeons and physicians for similar complaints and was given vestibular sedatives following which patient had subtle improvement in his complaint. Patient had undergone multiple CT head and PNS scans, which were reported to be normal. Patient was evaluated at our centre for similar complaints. MRI Brain revealed multiple flow voids in left temporal and lower parietal regions on T2 weighted sequences. MR Venogram revealed multiple tortuous blood vessels consistent with dural arteriovenous fistula in left temporal region. Patient was subjected to DSA-Cerebral angiography which revealed left dural arteriovenous fistula involving left transverse sinus with cortical venous reflux.Subsequently, patient had undergone embolization of arterial feeder and the venous feeding vessel. Following the angiographic intervention, patient had complete resolution of the pulsatile tinnitus without any post-procedural neurological deficit. Hence, not only otolaryngologists but also neurologists and neurosurgeons should be aware of this entity and meticulously evaluate patients with PT. In almost all cases PT originating from dAVF can be cured with trans-arterial embolization irrespective of its location and its venous drainage pattern.

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SCB MCH, Cuttack

Abstract

THYROID AND LIPID PROFILE IN PREDIABETES

Dr Soumyaranjan Mishra, Dr Namita Mohanty
Dr Sangeeta Rout

Introduction:

Individuals with T2DM and prediabetes have increased risk of coronary artery disease. Thyroid dysfunction may amplify existing cardiovascular disease risk in hyperglycemic subjects. Lipid abnormalities are also common in people with T2DM and prediabetes. Studying the association between serum lipid parameters and thyroid profile abnormalities in prediabetes population is of considerable clinical importance.

Aims and Objectives:

To study Thyroid and lipid profile in prediabetes and control

Materials and Methods:

Group-I: Patients with prediabetes are considered as Cases. (Patients with fasting plasma glucose-100-125mg/dl and/or Post prandial blood glucose 140-199 mg/dl and/orHbA1C-5.7-6.4% as per "American diabetes association 2017")

Group-II: Patients with normal fasting plasma glucose ,post prandial blood glucose and HbA1C are considered as Control.

Result:

Among prediabetes 12% have hypothyroidism as compared to 5% among nondiabetic(p value<0.05). Serum Triglycerides, Serum cholesterol ,Serum LDL levels significantly high in prediabetes compared to nondiabetic while Serum HDL level is low among prediabetes compared to nondiabetic(p value <0.05).

Conclusion:

There is significant increase in the prevalence of hypothyroidism and dyslipidemia among prediabetes population. Hence, they should be screened early for these parameters and early management may reduce future cardiovascular morbidity and mortality.

Keywords: Prediabetes, Thyroid Profile, Lipid Profile

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MKCG MCH, Berhampur

MIXED TYPE AUTO-IMMUNE HEMOLYTIC ANEMIA IN A PLHA PATIENT: A RARE CASE REPORT

Dr Deebyendu Sahu, Dr Lipika Panigrahi, Dr Bhagyashree Panda, Dr Chinmay Kumar Panda

Introduction

The prevalence of anemia in HIV patients is high, due to multiple etiologies. Autoimmune hemolytic anemia (AIHA) in HIV patients is usually of warm antibody type**.**In a patient with HIV infection, mixed type AIHA, a distinct category of immune hemolytic disorders with both warm and cold auto-antibodies in patient's serum is a very rare scenario.

Aims and Objectives of this case study:

A rare case report on mixed type autoimmune hemolytic anemia in a PLHA patient.

Case Report

A 45 years old female from Bhadrak, Odisha,presented with complaints of generalized weakness, easy fatigability and yellowish discoloration of sclera for 15 days.The profound anemia, jaundice, hepatosplenomegaly, reticulocytosis with raised LDH and positive DAT confirmed the diagnosis of autoimmune hemolytic anemia. On further analysis both warm and cold type antibodies were present. She was tested positive for HIV as per NACO protocol.

Results

Final diagnosis was HIV induced mixed type autoimmune hemolytic anemia.The patient was treated with oral prednisolone, transfused with 2units of packed RBC and combination anti-retroviral therapy and was improved.

Conclusion

In this case mixed type (both warm and cold auto-antibody) autoimmune hemolytic anemia was present in a HIV infected patient, which is unusual.

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SCB MCH, Cuttack

Abstract

A RARE PRESENTATION OF GRAVES DISEASE WITH PANCYTOPENIA

Dr. Kalavakolanu V S R S L Aneesh, Dr. Samir Sahu, Dr. Chandan Das, Dr. Siba Prasad Dalai, Dr. Meghanad Meher, Dr. Brijeshraj Swain, Dr. Nalinikanta Sahoo, Dr. Ayush Dubey, Dr. Jonnalagadda Vihari

Background:

Pancytopenia is a serious hematological disorder that, apart from primary marrow failure, may be secondary to several other conditions. These include infection, radiation, drugs (especially cytotoxic drugs), and certain metabolic diseases. Among the latter, the association between hyperthyroidism and pancytopenia is reported least commonly. The pathogenesis of such an association is not clearly understood, though hypotheses of immunogenic and toxic mechanisms have been advocated. The response of pancytopenia to treatment of hyperthyroidism confirms the casual relationship and may preclude any other treatment modalities of pancytopenia. Accurate diagnosis and appropriate tailored therapy are challenging due to the variegated causes of pancytopenia and the potential hematological toxicity of antithyroid drugs (ATDs).

Case report:

We report a 44yr/F presented to medicine OPD with chief complaint of neck swelling, weight loss since 6 months, diarrhea since 1 month and fever since 10 days. On examination P/R was 112/min; BP was 140/90mmHg; both the lobes of thyroid gland were diffusely enlarged with no nodularity. Her blood investigations showed pancytopenia and her thyroid profile showed picture of hyperthyroidism (FT_3 and FT_4 are elevated more than 7 times the upper limit with markedly low TSH level). Bone marrow study showed the picture of hypercellularity with trilineage haematopoiesis. On this basis, we diagnosed the case to be a graves disease induced pancytopenia and we started Anti-Thyroid drug (Carbimazole 10 mg thrice daily). Although in this context the use of ATDs is still under debate, low-dose carbimazole therapy was able to induce resolution of pancytopenia in our patient along with restoration of euthyroid status.

Conclusion:

Our case provides clinical, laboratory and histo-pathological features of Graves's hyperthyroidism-related pancytopenia with a view to improve the knowledge of this rare hematological complication and assisting in the decision-making process regarding therapeutic options. Pancytopenia is an extremely rare presenting feature of Graves' hyperthyroidism. It is recommendable that evaluation of the patient's thyroid status should be included among the investigations for pancytopenia, even though hyperthyroidism may not be clinically evident at the first instance.

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IMS AND SUM HOSPITAL,
SIKSHA 'O' ANUSHANDHAN (Deemed To Be University),
Bhubaneswar

HEMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS AS A RARE PRESENTATION OF ADULT-ONSET STILL'S DISEASE

Dr. Jayashree Sahu, Dr. Tony Mathew Austin, Dr. Tom Geo James, Dr. P.C. Karua

Introduction

Adult Onset Still's Disease (AOSD) is a rare inflammatory disorder, characterised by episodes of high grade fever, arthralgia, myalgia, rash, sore throat, abdominal pain, hepatosplenomegaly and lymphadenopathy. Very rarely does it complicate with secondary Hemophagocytic LymphoHistiocytosis (HLH). Here we report a case of AOSD that had presented as secondary HLH.

Case Details

A 40 yearold presented with 2nd episode of prolonged fever, polyarthralgia, myalgia, fatiguability, anorexia, significant weight loss. On examination he had hepatosplenomegaly, multiple significant lymph nodes, supported by elevated levels of Ferritin, LDH, fasting Triglycerides, hypofibrinogenemia, Pancytopenia and normal ANA levels. The diagnosis was supported by Yamaguchi's criteria and HLH diagnosis criteria.

Discussion

AOSD can have 3 patterns: Monophasic/Polyphasic (intermittent)/Chronic pattern. The diagnosis is made by Yamaguchi's criteria after excluding infections and malignancy. If untreated, chronic inflammation can lead to destruction of joints. A rare, but potentially dangerous complication is secondary HLH, characterised by cytokine burst.

Management is mainly by immunosuppression, initially with corticosteroids, and later shifting to a steroid sparing alternative, including, but not limited to Methotrexate,anti TNF-alpha drugs, etcetera.

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Dept. of Medicine, VIMSAR, Burla

Abstract

DYKE-DAVIDOFF-MASON SYNDROME, A RARE CAUSE FOR EPILEPSY: A CASE REPORT

Dr. ZiddiLinggi, Dr. Butungeswar Pradhan

Introduction :

Dyke-Davidoff-Mason Syndrome[DDMS} refers to atrophy or hypoplasia of one cerebral hemisphere which is usually due to an insult on a developing brain in fetal or childhood period.

Case Details :

Here we report a case of 25 years old male presented with multiple episodes of generalized tonic clonic seizure. He was having similar episodes since last 10 years and was on antiepileptic medication irregularly. Patient had history of developmental delay and weakness of right upper and lower limb since early childhood. On physical examination patient had facial asymmetry, hemiplegic gait and had mild weakness in his right upper limb and lower limb. Plantar reflex was extensor in right side. Laboratory data revealed no other abnormality. EEG was also normal. MRI of brain revealed left cerebral hemiatrophy and other features suggestive of DDMS. Diagnosis of Dyke-Davidoff-Mason syndrome was made and patient was started on levetiracetam and sodium valproate.

Discussion :

Dyke-Davidoff-Masson syndrome commonly presents with recurrent seizures, contralateral hemiplegia, facial asymmetry and mental retardation. This case highlights the importance of keeping DDMS as a differential diagnosis while evaluating a patient with seizure.

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Dept. of Medicine, VIMSAR, Burla, Sambalpur

A CASE OF CO-EXISTENCE OF TWO RHEUMATOLOGICAL CONDITIONS : IBD WITH SPONDYLOARTHRITIS & TAKAYASU ARTERITIS

Dr. Priyadarshini Kar, Dr. Ajit Kumar Surin
Dr. Kanhu Charan Das

Introduction:

In Rheumatology, there are various disease overlaps which have been described in literature. But here, we have a patient who has two different rheumatological conditions co-existing together which is a rare entity in day-to-day practice. A wise clinical treatment decision results in a good outcome.

Materials:

Here we present a case of a 30 yrs old female with no comorbidities who presented with history of

1. Altered bowel movements, loose stools with mucus, diffuse pain abdomen
2. Remote history of low backpain
3. Weight loss

Observations:

Hb%: 9.8, ESR:80, CRP:18, Colonoscopy:ileocecal ulcers with nodularity, HPE: ileocolitis, ulceration. CECT Abdomen: s/o: Crohns disease, aorto-arteritis, sacroilitis. ASCA IgG positive, Stool calprotectin 1280µg/gm,HLA B27 negative (PCR),CT Aortogram: s/o: aorto-arteritis

Conclusion :

Since she had 2 different rheumatological conditions, after much discussion, she was started on low dose steroids & azathioprine. She has been symptoms free since then & on regular follow up.

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Consultant Rheumatologist, Consultant Gastroenterologist
Apollo Hospitals, Bhubaneswar

Abstract

BULBAR PALSY AS A RARE PRESENTATION OF WILSON'S DISEASE:A CASE REPORT

Dr. Ankeet Biswas, Dr. Sagnika Tripathy

Introduction

Wilson's disease is an AR disorder caused by mutations in ATP7B gene located on chromosome 13q14. We report a case of bulbar palsy who was subsequently diagnosed as Wilson's disease.

Case report

20yr old male presented with tremulousness of body for 3 years,difficulty in swallowing and drooling of saliva for 1yr,nasal regurgitation of fluids for 8months,difficulty in walking for 6months and urinary incontinence for 2months.On examination, patient was hemodynamically stable with normal higher mental functions having more dysphagia to liquids than solids,dysarthria,absent jaw jerk,absent gag reflex,rigidity in all 4 limbs, bilateral plantar extensor and exaggerated DTR's with presence of wing beating tremors.

Investigations : AST 46IU/L,ALT 16IU/L,AST/ALT ratio 3, ALP 46IU/L,T.Bilirubin(0.5mg/dl),ALP/T.Bilirubin ratio 92,Sr. Ceruloplasmin of 4.36(normal >20)

Slit lamp examination : KF rings in Descemet's membrane.

MRI brain : T2 and FLAIR hyperintensities in bilateral basal ganglia,thalamus,pons with restrictive diffusion.

USG abdomen revealed features of hepatic parenchymal disease.

Leipzig score was 7.

Hence patient was diagnosed as a case of Wilson's disease and started on zinc and d-penicillamine.

Conclusion

Although tremors and abnormal movements are the initial manifestations of Wilson's disease,bulbar symptoms especially in middle aged individuals must also be evaluated in the line of Wilson's disease.

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Dept. of Medicine, VIMSAR, Burla, Sambalpur

A RARE CASE OF ACUTE SOFT SKULL SYNDROME IN SICKLE CELL DISEASE PATIENT

Dr. Aditya Dora, Dr. Manoj Kumar Mohapatra

Acute soft skull syndrome, a rare manifestation of Sickle cell Disease, is related to infarction of the skull.

We report a case of 19 year old male, with a known history of sickle cell disease, presenting with headache and body ache for 4 days. Following admission, the headache deteriorated with gradual increase in swelling of skull over right parietal region.

Routine investigation showed anaemia. NCCT Brain shows soft tissue swelling and fluid collection. MRI Brain showed diploic space marrow signal changes. T2 STIR MRI can detect areas of the high-intensity bone marrow infarction and edema. T2 FLAIR shows right parietal bone marrow hyperintensity and hyperintense subgaleal collection.

From the above findings, a diagnosis of Acute soft skull syndrome was made.

The above case is presented for its typical clinical manifestation and rarity with only few cases reported worldwide. It is due to expansion of intramedullary hematopoietic tissues leading to disruption of the outer and inner skull margins and in turn resulting in softening of cortical bones. Surgical management including aspiration was not necessary and conservative medical treatment with fluids and analgesics resulted in good response and rapid recovery of our patient.

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Dept. of Medicine, VIMSAR, Burla, Sambalpur

Abstract

PLHA WITH DYSAUTONEMIA: A RARE CASE ENTITY

Dr. Khemeswar Agasti, Dr J.K.Panda

Introduction

Autonomic neuropathy is an unusual amongst the neuropathies &Dysautonemia inPLHA is a rare phenomenon and very few cases have been reported in world till date. Itshows features like gastroparesis, difficulty in urination and defecation, sweating, repeatedsyncopal attack (orthostatic hypotension) and erectile dysfunction. It can affect the usual lifestyle of patient significantly increasing the morbidity that needs proper attention.

Case Report

A patient diagnosed with HIV for 3 months back came with chief complain of repeated fallfollowed by blackout on standing.On examination- BP on standing was 0 after few seconds of standing and there was erectiledysfunction. After a thorough investigation and detailed history for ruling out secondarycauses he was finally diagnosed with dysautonemia due to HIV. Tests for autonomicdysfunctions like Valsalva manoeuvre, cold pressor test, orthostatic test, head up tilt test,ECG of different postures, HRV etc was done for diagnosing the case as HIV dysautonemia.

Treatment and Follow Up

Symptomatic treatment like fluid therapy, salt intake, compression bandage helped thecondition of the patient which was followed by medical management like fludrocortisone andpyridostigmine.Now the conditions of the patient is slow but a steady state of improvement and there isa gradual increase in standing.

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Dept. of Medicine, S.C.B. MC, Cuttack

NEUROMELIOIDOSIS: ATYPICAL PRESENTATION OF A RARE INFECTION

Dr. Anupam Dey, Dr. Anil Dash, Dr. Sujata Devi
Dr. Debananda Sahoo, Dr. Arpita Dash

Introduction

Neuromelioidosis is a rare infectious disease of the nervous system caused by Burkholderiapseudomallei. It is associated with a significant debilitating morbidity and mortality rate of around 25%.

Case Report

A 47-year-old diabetic male presented with history of high-grade fever since the past 4 months, tenderswelling of right knee and left ankle for 2 months, altered sensorium for 1 week and acute onset left hemiplegia for last 2 days. Routine investigations revealed severe anemia. CSF Analysis revealed increased protein and lymphocytic pleocytosis. CE-MRI Brain showed multiple peripherally enhancing T2W/FLAIR hyperintense lesions in right fronto-parietal lobes, gangliocapsular region- likely multiple abscesses. Blood and synovial fluid cultures positive for Burkholderiapseudomallei.Patient was started on intensive phase therapy with injectable Meropenem and oral Cotrimoxazole and is currently showing signs of improvement on treatment.

Conclusion

Melioidosis is a latent infection with a wide range of presentations which can be accurately diagnosed with proper history taking, clinical examination and microbiology support. Neuromelioidosis is a dreaded complication and poses a diagnostic challenge. Imaging is essential to establish the extent of infection. Early diagnosis and timely initiation of treatment may save the patient from persistent disability/death.

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Junior Resident, Department of General Medicine
AIIMS Bhubaneswar

Abstract

ASSOCIATION OF THYROID PROFILE IN ADULT BRONCHIAL ASTHMA CASES WITH OBESITY

Dr.Srimayee Mahapatra[1], Dr. Pratima Kumari Sahu[2], Dr.Mrutyunjaya Panda[3]

Introduction:

Bronchial asthma is a chronic condition characterised by chronic airway inflammation and variable expiratory airflow obstruction that produces symptoms such as wheezing, shortness of breath, chest tightness, and cough, which vary over time and in intensity.Asthma currently affects approximately 300 million people worldwide with 250000 deaths annually. In India, out of 1.31 billion people, 6% children and 2% adults are affected. Obesity accounts for asthma severity. In this study, we assess thyroid profile in obese patients of bronchial asthma and try to find a correlation between the thyroid hormonal axis and asthma severity.

Method:

Whole blood samples from 80bronchial asthmatic patients between 18-65 yearswere collected over a period of 2 months. 40 patients were obese with BMI > 25(group I).Group II consisted of 40 non obese bronchial asthmatic patients. Serum thyroid profile [free T3 (FT3), free T4 (FT4), and thyroid stimulating hormone (TSH)] of all the patients were measured by chemiluminescence method and analysed between the study groups.

Results:

The thyroid profile of group I was: Mean FT3 - 0.86 pmol/l, Mean FT4- 4.18 pmol/L and Mean TSH – 18.56 uIU/ml, while that of group II was: Mean FT3 – 2.26 pmol/l, Mean FT4 - 9.48 pmol/L and Mean TSH – 10.75 uIU/ml. Both the study groups presented with hypothyroidism.

Conclusion:

Hypothyroidism was significantly associated with obese bronchial asthmatic patients as compared to non-obese.

Keywords: Bronchial asthma, FT3, FT4, TSH, Obesity.

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[1]Postgraduate student, [2]Professor and H.O.D., [3]Senior Resident, Department of Biochemistry, S.C.B Medical College, Cuttack.

BUDD CHIARI SYNDROME AS A MANIFESTATION OF SYSTEMIC LUPUS ERYTHEMATOSUS

Dr Srija Sarangi

Budd-Chiari syndrome is obstruction of hepatic veins or terminal IVC.One of the causes is systemic lupus erythematosus due to antiphospholipid. Antibodies as APLA syndrome is more prevalent in patients with SLE. Only a few cases of Budd Chiari syndrome as a manifestation of SLE have been reported worldwide.

A 21year old female presented with abdominal distension for 1 month followed by bilateral pedal edema for 2 weeks. There was no history of recurrent miscarriages,rash, seizures and body pain.There has been arthralgia in fingers of both hands for last 3 months without any deformity, with non-scarring alopecia for last 6 months.

Routine investigations showed anemia, SAAG ratio was 1.4, USG and CECT abdomen were suggestive of Budd-Chiari syndrome.ANA and Ds DNA screening were positive. Anticardiolipin and Anti- phospholipid antibodies were within normal range.

From the above findings a diagnosis of Budd-Chiari syndrome in SLE was made.

In Budd-Chiari syndrome there is thrombosis of all three major hepatic veins. APLA syndrome is characterized by production of autoantibodies directed against phospholipids and is associated with multiple thrombotic events. APLA can complicate SLE by subjecting the patient to different vaso-occlusive events. There are rare reports of association of APLA with Budd-Chiari syndrome. Our case has clinical manifestations of SLE before developing Budd-Chiari syndrome without any evidences of APLA syndrome which makes it even rarer. Our patient was managed with anti-coagulants, steroids along with cyclophosphamide then referred to higher center for further management.

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VIMSAR,Burla

Abstract

STUDY OF PREVALENCE OF PULMONARY HYPERTENSION IN DIALYSIS VS NON-DIALYSIS CHRONIC KIDNEY DISEASE PATIENTS

Dr Barsarani Swain, Dr Bibhuti Sethy

Background

Chronic kidney disease leads to many comorbidities that affects patients at all stages of disease. Recently there has been found an association between pulmonary hypertension and patients on hemodialysis.

Aims

To study the prevalence of pulmonary hypertension in dialysis vs non-dialysis CKD patients.

Methods

120 CKD patients in which60 each inhemo-dialysis and non - dialysis groups, who met the inclusion criteria were included. The parameters like hemoglobin level,etiology of CKD,duration of dialysis ,2D Echocardiogram for the presence and severity of pulmonary hypertension among the patients in dialysis and non – dialysis dependent groupswere studied.

Results

All the patients had low hemoglobin level with mean being 8.69 gm %. The mean duration of dialysis is 12.6 months. Among 120 CKD patients, 55 (46.75 %) had pulmonary hypertension and in these 55 patients 47(38.33%)were on dialysis and 8 (9.7%) were on conservative management, with significant linear relation between duration of dialysis and severity of pulmonary hypertension.

Conclusion

The mechanism of pulmonary hyprtension in CKD patients is complex and it is associated with reduced survival. So, detection of PH is necessary in CKD patients which also help in prognosis in post transplantation period.

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MKCG MCH, Berhampur

BLUE RUBBER BLEB NEVUS SYNDROME: A RARE CASE REPORT

Dr Debasish Rath, Dr Jayanta Kumar Panda

Introduction:

Blue rubber bleb nevus(BRBN) syndrome, also known as Bean syndrome, is a rare syndrome of venous malformations characterized by multiple cutaneous and gastrointestinal hemangiomas. Other organ systems can also be involved, like CNS, hepatobiliary, musculoskeletal system. Patients present withdistinctive bluish papules in various organ systems& are at high risk of gastro intestinal haemorrhage& severe iron deficiency anemia.

This case report depicts a case of BRBN syndrome in a 30-year-old female with multiple venous malformations in entire colon along with severe B12 deficiency anemia.

Case Report:

A 30-year-old female presented with passage of blood in stool intermittently for 1 year & generalized weakness for 2 months.Clinical examination revealed severe pallor, glossitis, hyperpigmentation of palms, sole and knuckles.

Investivation

Pancytopenia, Serum vitB12 <50 pg/ml, Stool Occult Blood Test – Positive, Colonoscopy revealed multiple venous malformations suggestive of Bluerubber bleb nevus syndrome

Treatment

Patient was treated with Blood transfusion, Iron replacement therapy, Vitamin B12 supplementation and she is on regular follow up.

Discussion

BRBN syndrome usually presents in early childhood and rarely in adulthood.

The above discussed case is a variant of Blue rubber bleb nevus syndrome without cutaneous involvement.

Further radiological and endoscopic evaluation is needed in this patient to find out other system involvement.

Conclusion

Patients with BRBN syndrome require high grade of suspicion & clinicopathological correlation for early diagnosis. As it can be associated with fatal haemorrhages, early diagnosis willgreatly improve patients' quality of life.

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SCB MCH, Cuttack

Abstract

DENGUE ENCEPHALITIS WITH "DOUBLE DOUGHNUT" SIGN: AN UNUSUAL PRESENTATION

Dr Manoranjan Swain, Dr Jayant Panda
Dr, Aradhana Sahoo, Dr Abhiram Panda

Introduction

Dengue is vector borne ssRNA flavivirus causing periodic epidemic in tropical countries. The South East Asia region countries reported.29 million cases from which India reported 20%. Dengue is not primarily known to be a neurotropic virus, but recently few cases of CNS involvement has been reported. High degree of clinical suspicion is needed to diagnose this unusual presentation of dengue.

Case

A 35 yr old female presented to our emergency department with high grade continuous fever associated with chill rigour of 3days, Gradual onset altered sensorium of 2 days. there is no history of pain abdomen vomiting, seizure,or visiting away from home town. on examination patient is febrile with pr -104/min and bp 110/70 mmhg with GCS E1V1M4 with bilateral lateral rectus palsyand pupil reacting to light bilaterally, plantar bilateral extensor without any meningeal sign. Respiratory, cardiovascular system, abdomen appears to be normal, on examination electrolytes, sugarare normal, on CBC there is thrombocytopenia, on LFT there is AST 80 U/L and ALT 58 U/L with normal RFT.MPICT is negative, dengueNs1Ag is positiveNCCT there are symmetrical hyper dense lesion in thalamus, onCSF examination there is nil cell count with high protein. on MRI showing haemorrhagic encephalitis with double doughnut sign suggestive of dengueencephalitis. patient has received 5 days pulsemethylprednisolone, along with supportive medication. Gradually patient GCS improved. On day 16 patient GCS improved to 15 / 15 with residual LR palsy and truncal ataxia. patient discharged on tapering dose of steroid. after one month follow up truncal ataxia improved with residual lateral rectus palsy persist.

Conclusioin

Dengue fever is a common tropical infection. recognizing serious complication and prompt treatment important to prevent mortality.

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SCB MCH, Cuttack

BURKITT LYMPHOMA MAQUERADING A SPLENIC ABSCESS

Dr. Debashree Devidutta Samal, Dr. Aswini Kumar Sahoo, Dr Samir Sahu, Dr. Santosh Kumar Swain

Background

Burkitt lymphoma presenting as a splenic abscess is a rare entity.Burkitt lymphoma is an aggressive B-cell neoplasm.It is associated with EBV,HIV,overexpression of c-myc.History and clinical case finding: A 14 yr old male presented with the complaints of fever for 1 month,cough with expectoration for 4 days.H/o weight loss(6-7kg)in last one month. Patient has h/o prior hopitalisation for one month fever for which injectable antibiotics were given and diagnosis of splenic abscess was made.Patient has h/o 5 blood transfusion in last 1 month. On general examination pallor was present. Per abdomen soft,nontender,splenomegaly present. Basic investigations showed TWBC-3.32X10^3,Hb-6.9 gm/dl,TPC-1,02000.Peripheral smear showed microcytic hypochromic anemia with target cells,reactive lymphocyte present.USG abdomen pelvis showed enlarged spleen(13.1cm)with well-defined organized hyperechoic calcification of size 2.8x2.3 cm in splenic parenchyma.Bone marrow study revealed blastcell(87%). Bone marrow aspirate shows increase in abnormal blast cell (87% of total nucleated cell). Flow cytometry shows blast 59.5%. Positive CD marker are CD19, CYCD79a, CD10, CD20, kappa, HLADR. Biopsy finding consistent with infiltration of mature B cell neoplasm favoring BL.

Discussion

In our case,diagnosis of Burkitt lymphoma was associated with splenic abscess which was confirmed by biopsy.

Conclusion

Burkitt lymphoma associated with splenic abscess is a rare entity.hence all types of non resolving abscess even if organized collection is there we should go for FNAC and biopsy to rule out malignancy.

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IMS AND SUM HOSPITAL, Bhubaneswar

Abstract

ARTHRITIS AS MAIN OR ONLY SYMPTOMOF ACUTE HEPATITIS B

Dr Gola Swain

Introduction

The occurrence of joint pain in the prodrome of viral infection is well documented. Upto a third of patients developing clinically apparent hepatitis B note significant rheumatic symptoms before jaundice appear. In spite of this hepatitis B infection is seldom considered in the differential diagnosis of acute polyarthritis. Hepatitis B associated arthritis always precedes the onset of jaundice, sometimes by several weeks and may be the only manifestation of infection. This case illustrates the characteristic clinical features of this important & often missed diagnosis.

Material and Methods

A 26-year-old lady presented to our casualty department with severe joints pain. Four days earlier she had awoken with severe pain in both shoulder joints, subsequently the metacarpophalangeal and proximal interphalangeal joints, elbow, jaw, lumber spine, hips and knees had also become painful. There was no history of rashes, fever, preceding respiratory or gastrointestinal or Genitourinary infection. There was no h/o travelling abroad, recent vaccination, blood transfusion. On investigation she was found to be HbsAg, HbeAg positive and her liver enzymes were elevated.

Conclusion

In this case the evidence of Acute Hepatitis B infection is demonstrated and other causes of joint pain are excluded. Hepatitis B arthritis is a recognizable clinical entity with some features which differs from other viral arthritis. The onset of joint pain is often dramatic as in this patient with several joints being involved at once in a symmetrical fashion. The PIP, Knee, ankle & MCP joints are most frequently involved. Joint symptoms usually persist no more than 2 weeks and in most cases the arthritis resolves with the onset of jaundice. The recognition of Hepatitis B as a cause of acute arthritis is important both for management & for safety and protection of clinical and laboratory staffs.

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MKCG MC, Berhampur

ECG AND 2D ECHO MANIFESTATIONS IN STROKE PATIENTS

Dr.AsimaKanti Minj

Aim

To study the different changes in ECG and echocardiographic patterns in patients of cerebrovascular accidents and to assess whether these different changes have got any prognostic significance in these cases.

Materials and Method

100 patients of acute stroke were considered and ECG and 2D echo of these patients were done within 24 hours of admission. In hospital follow up was done to know the prognosis of all the patients.

Result

ECG abnormalities noted among infarct group were presence of U waves, prolonged QTc were most common followed by T wave inversion and ST segment depression. In cases of hemorrhagic stroke, ST depression and U wave were the most common abnormalities. LV dysfunction was the most common 2D echo abnormality in both ischemic and hemorrhagic groups.

Conclusion

ST segment depression, QTc prolongation and U waves are the common ECG abnormalities in hemorrhagic stroke. QTc prolongation and U waves are the common ECG findings in ischemic stroke. LV dysfunction is the most common 2D echocardiographic abnormality in stroke patients. ECG abnormality in stroke patients do not have any prognostic significance but LV dysfunction has prognostic significance in predicting mortality in CVA.

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VIMSAR, Burla, Sambalpur

Abstract

PRIMARY ADRENAL INSUFFICIENCY MISDIAGNOSED AS HYPOTHYROIDISM IN A PATIENT WITH AUTOIMMUNE POLYGLANDULAR SYNDROME

Dr Abinash Barik, Dr Satya Ranjan Sethy

Context

Autoimmune polyglandular syndrome is a rare condition that causes a variety of clinical symptoms due to autoimmune processes involving multiple endocrine organs. Its vague presentation can cause missed or delayed diagnosis and treatment for adrenal insufficiency, resulting in a life-threatening adrenal crisis.

Case Report

A 46year lady presented with lethargy, hypotension, hyponatremia, hypoglycemia, and an elevated thyroid-stimulating hormone level. No significant response to initial treatment with levothyroxine and dextrose occurred. Diagnostic workup later revealed primary adrenal insufficiency. All initial symptoms completely resolved following treatment with hydrocortisone, fludrocortisone, and levothyroxine.

Conclusion

Autoimmune polyglandular syndrome causes dysfunction of multiple endocrine organs such as the thyroid gland, adrenal gland, and pancreas. Initial diagnosis of APS is crucial and difficult because of its vague, acute presentation, which often involves hypothyroidism and adrenal insufficiency. Delayed treatment of adrenal insufficiency can result in a life-threatening adrenal crisis. A diagnostic workup for adrenal insufficiency should be performed in patients who do not respond to hypothyroidism treatment.

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Dept of Medicine, MKCGMC, Berhampur, Odisha

TO IDENTIFY THE TREND OF EPIDEMIOLOGICAL FACTORS AND PATTERN OF COMORBIDITIES ASSOCIATED WITH POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME: STUDY FROM A TERTIARY CARE CENTRE

Dr Miriyala Sai Srinivas, Dr K.P Tripathy

Background:

Posterior reversible encephalopathy syndrome (PRES) is a clinic-radiological syndrome that presents with rapid onset headache, seizures, altered sensorium, visual disturbances, and characterised by white matter vasogenic edema affecting posterior parietal and occipital lobes predominantly and increasingly recognized entity with certain identified predisposing factors in general population However, the actual incidence, comorbidities, outcomes, and hospitalization stay in India is unknown

Aim and objectives:

To identify the trend of epidemiological factors and patterns associated with Posterior reversible encephalopathy syndrome

Methods:

The Retrospective data from MRD was analysed during the period of January 2021 to November 2022 for incidence of 20 PRES-related hospitalizations, associated diagnoses, in-hospital out comes. We report demographics, risk factors, discharge status, mortality, length of stay

Results:

In the years 2021 -2022, Among the 20 hospitalisations related to PRES 10 were male patients,5 were female and 5 paediatric patients were identified and detailed epidemiological study including mean age, gender, previous history of hypertension, BMI, length of hospital stay. Majority of the patients were discharged home We found that PRES-related hospitalizations were significantly associated with increased length of stay in hospital and common in male gender, previous history of hypertension and in people with most common affected age group is 51 to 70 years of age.

Conclusion:

Previous history of hypertension and elderly age group were significant risk factors found to be associated with PRES. The presence of PRES was associated with a significant increase length of stay in elderly.

Keywords: Incidence; posterior reversible encephalopathy syndrome;Vasogenic edema; outcomes.

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KIMS, Bhubaneswar

Abstract

A CASE OF RECURRENT DEEP VEINOUS THROMBOSIS AS THE INITIAL CLINICAL PRESENTATION OF LUNG CANCER

Dr. Sambit Kumar Palo, Dr. Aniket Bhattacharya
Dr. S. S. Pattnaik, Dr. N. Mohapatra

Introduction

Venous Thromboembolism (VTE) which includes both Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE) is a clinical condition, commonly encountered in hospitalized Patients.

Aim & Objective of the Case:

A rare case and interesting case of 22 years old female who presented with complains of unprovoked deep venous thrombosis (DVT) and after extensive investigational workup it was found to be due to an underlying carcinoma lung with metastasis.

Case Report:

A 22-year-old female presented to the OPD with complains of pain and swelling over her left leg for last 6 days which was gradually increasing in size. There was no history of any trauma, prolonged bed rest, recent surgeries etc.

Results:

Based on the clinical and investigational reports a final diagnosis of Ca Lung with Metastasis to bone,liver and peritoneum with left leg DVT was made.

Conclusion:

Recurrent episodes of venous thromboembolic episodes in young patients with no previous history of any underlying disorders should prompt clinicians to look for underlying malignancy.

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PG Dept. of Medicine, SCB MCH, Cuttack

A VARIED PRESENTATION OF DRESS SYNDROME

Dr. Jain T., Dr. Mohanty A.P., Dr. Mishra P.
Dr. Patro S., Dr. Nayak S.

This patient presented to us with complaints of fever, dry cough, generalised weakness,vomiting, yellowish discolouration of sclera and urine and itching all over the body. On evaluation the patient was found to have icterus, hepatomegaly. After 3 days of admission the patient developed diffuse erythema and facial swelling. Investigations revealed a deranged LFT (High serum total bilirubin, serum direct bilirubin, SGOT, SGPT, Alkaline phosphate, GGT levels), raised WBC count. An Absolute eosinophil count of 1070/ccm, a detailed history of Phenytoin administration 1 monthback and ruling out other infective causes led to the diagnosis of DRESS Syndrome. The patient was managed in ICU as the patient developed MODS. Drug-Induced Hypersensitivity Syndrome (DIHS) also known as DRESS (Drug reaction with eosinophilia and systemic symptoms) is a serious and potentially fatal adverse effect to therapeutic medications. The syndrome is difficult to diagnose as many of its clinical feature mimics those found with other systemic disorders. It is imperative be more vigilant about the early manifestations of this syndrome, as early diagnosis and treatment improve outcomes considerably.

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KIMS, Bhubaneswar

Abstract

RITUXIMAB IN TREATMENT OF RELAPSING GRANULOMATOSIS WITH POLYANGITIS

Pooja Agarwal, Suvankar Dey
Pranavi Reddy, Debashis Maikap

Introduction

Granulomatosis with polyangitis (GPA) is a small vessel vasculitis involving mainly the upper and lower respiratory tracts together with glomerulonephritis.

Case Report

A 32 years old female presented with intermittent fever with cough, epistaxis, ear discharge followed by hearing loss and trismus for 6 weeks. On examination gum hypertrophy with petechiae, proptosis of left eye, B/L tympanic membrane perforation and left sided LMN type facial palsy was noted. After all necessary radiological and biochemical evaluation. C-ANCA shows value of 189.1 AU/Ml. Nasal mucosa biopsy shows necrotising vasculitis of small arteries with granuloma formation.Injection methylprednisolone (pulse therapy) and cyclophosphamide (EUVAS protocol) was started.Initially there was clinical improvement but after 3rd dose of cyclophosphamide patient's symptoms started deteriorating with increased productive cough associated with hemoptysis. After microbiological examination of sputum, she was started on iv antibiotics. After the course of antibiotics, injection rituximab was given and there was significant improvement in clinical as well as biochemical parameters.

Discussion

In various study rituximab was found to an effective drug for remission induction and maintenance therapy in case of relapsing GPA, which was used in our case and shows significant improvement.

Conclusion

Person with lagophthalmos, sinusitis and facial palsy-consider possibility of Granulomatosis with Polyangitis.

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KIMS, Bhubaneswar

NON KETOTIC HYPERGLYCEMIC HEMICHOREA IN ELDERLY; A RARE NEUROLOGICAL MANIFESTATION IN UNCONTROLLED DIABETES MELLITUS

Dr Smriti Samikshya Nayak

Background

Neurological manifestation in diabetes may include cerebrovascular events, peripheral neuropathy, epileptic seizures etc. However Hemichorea can be a rare complication in uncontrolled diabetes mellitus. It can be due to non-ketotic hyperglycemia, ischemia or microhemorrhages. It is common in elderly females. General management include control of blood glucose level and use of neuroleptic drugs.

Aim

To study hyperglycemia as a cause of hemichorea in elderly patients.

Methods

In this case series, we describe four cases of non-ketotic hyperglycemia hemichorea of elderly age group, one male and three females, who presented to the hospital with acute onset involuntary movement involving one half of the body and facial muscles. All of them were found to have high blood glucose level at the time of presentation. All of them were started on insulin therapy.

Results

After starting intravenous insulin therapy, the symptoms resolved with achievement of target blood glucose level.

Conclusion

Hemichorea due to non-ketotic hyperglycemia in elderly is an emergency condition. Early diagnosis and management is necessary as it can be reversed by correction of blood glucose level.

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Dept of Medicine, SCBMCH, Cuttack

Abstract

A RARE CASE OF LEPROUS NEUROMYOSITIS

Amiya Kumar Sahu, Jayanta Panda, Gyanamitra Panigrahi

Introduction

Leprosy as an infectious disease involving skin, peripheral nerves, respiratory tract and eyes is known for ages. A rare finding with involvement of nerves and muscles with no skin involvement, called leprous neuromyositis is presented here with only two reported cases till now. Indians have a 2-10% incidence of pure neurotic type of leprosy with muscle involvement being still rare.

Methods

A 26-year male with 14-year history of asymmetrical lower limb weakness with atrophy of both thighs, presented with bilateral foot drop and left-hand distal muscle weakness with sensory loss below ankle and left wrist for last 2 months with no pallor and lymphadenopathy. A complete work up with provisional diagnosis of myoneuropathy was done. On examination, high stepping gait, bilateral thigh and left the arm muscle atrophy, absent DTR in bilateral lower limb, absent plantar, absent sensations below ankle and left wrist was present with thickened ulnar and common peroneal nerves was found. All routine normal with normal thyroid function test and serum protein electrophoresis. NCS of upper and lower limb- motor sensory demyelinating axonal poly neuropathy with conduction block, EMG of all muscles - myopathic pattern predominantly involving both lower limbs, serum vitamin B12 normal and serum CPK - 1180u/L (elevated), normal CSF analysis, normal chest X-ray and normal USG abdomen was found. So, a further work up with slit skin smear,which was negative, and biopsy of nerve and muscle was done. HPE of peroneus brevis- thickened arteries and mixed inflammatory cell infiltration, HPE of Sural nerve- FITE stain ++ suggesting leprous neuropathy.

Results

With above findings the case was diagnosed as leprous neuromyositis and was started with MDT for 12 months.

Conclusion

Though leprosy is a rare disease these days, thickened nerve with weakness should also be worked out for it. A negative slit skin smear does not completely rule out the chances of leprosy and complete work up is necessary in myoneuropathy in leprosy.

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SCBMCH, Cuttack

MELIOIDOSIS - AN EMERGING DISEASE IN INDIA

Dr. Madhusmita Sahoo

Aim and Objective

To report a melioidosis case which is very rare India and has high mortality rate.

Methods

Here we studied a case who is 50-year-oldmale, known case of hypertension and ckd presented to hospital with complaints of persistent fever for 1 month and shortness of breath for 2 days.On examination patient was conscious, febrile, tachypneic, having spo293%, bilateral basal creps.On admission his hb-8g/dl,serum urea-157mg/dl, serum creatinine10.8mg/dl. CXR shows non homogenous diffuse opacities,HRCT thorax shows multiple centrilobular and randomly distributed nodules in both lungs (infective-tubercular or endobronchial spread),on sputum examination AFB and CBNAAT negative,usgabd-pelvis shows CKD,splenic microabcess,blood culture report came out to be burkholderiapseudomallei.

Result

Patient underwent 3 episodes of hemodialysis and his serum creatinine level drops down from 10.8 to 4.8mg/dl.After obtaining blood culture sensitivity report he received injectable piperacillin-tazobactumand improved symptomatically.

Conclusion

As melioidosis has high mortality rate, we should suspect it in every immunocompromised patient for early diagnosis and treatment.

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SCBMCH, Cuttack

Abstract

A CASE OF ACCIDENTAL METHOTREXATE OVERDOSE AND SUBSEQUENT ADVERSE OUTCOMES

Dr. Nischaya Goel

Methotrexate is an antimetabolite that acts by inhibiting dihydrofolate reductase hence inhibiting DNA synthesis and cell division. It is used for treatment in a variety of autoimmune, neoplastic & other conditions for its immunosuppressive and anti-neoplastic properties

The presentcase of mtx induced toxicity followed an accidental overdose. Patientpresented with oral ulcers, upper gastrointestinal mucositis and hypotension. She was admitted in ICU and was given leucovorin rescue therapy with folvite tablets, antibiotic and antifungal coverage.

On investigations, cbc showed pancytopenia(~2000) with severe neutropenia (3%),lft was deranged. Decreased urine output.

Counts marginally improved on 2nd day but d/t initial immunocompromised status, she soon developed sepsis, leukocytosis (TLC-27000) &multiple episodes of diarrhea for which GI pathogen panel revealed c. Difficile and enteroaggregative(eaec) e coli co-infection, positive for c. Diff. A/b/gdh toxin, increased inflammation markers. She was shifted to isolation room with barrier nursing& was administered oral vancomycin, metrogyl and rifagut & other supportive medications.Her symptoms, counts and vitals gradually improved and was discharged.

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Apollo Hospitals, Bhubaneswar

RARE PRESENTATION OF GITELMAN SYNDROME

Dr Mitranki Rathi, Dr Sri Prasad Mohanty

Introduction

Gitelman Syndrome (GS) referred as familial hypokalemia-hypomagnesemia, is a rare Autosomal Recessive salt wasting nephropathy, characterized by hypokalemic metabolic alkalosis with hypomagnesemia, hypocalciuria, metabolic alkalosis and low blood pressure**.**

Case Report

A 38 years old male presented with sudden onset quadriparesis with a history of generalized tonic-clonic seizures 2-3episodes two days back.He had similar complaints 5 months back too. Examination revealed power of 3/5 in all four limbs, tone and deep tendon reflexes are normal, plantar is bilateral flexor without involvement of bowel and bladder.Lab values for serum electrolytes [serum K+, Mg2+, Ca2+], urinary electrolytes, ABG were abnormal. Neuroimaging and EEG were normal. A diagnosis of hypokalemic paralysis was made based on clinical features and lab values. Patient was treated with IV Potassium chloride, IV calcium gluconate, and IV magnesium chloride. She was further evaluated for hypokalemia, hypomagnesemia, and hypocalcemia.

We report this unique case as Gitelman syndrome which presented as GTCS and acute onset quadriparesis.

Discussion

Most patients with Gitelman syndrome are asymptomatic and remain untreated. Once diagnosed, they should undergo ambulatory monitoring once/twice a year. Mainstay of treatment is a high salt diet with oral potassium and magnesium supplements. For many individuals, Lifelong supplementation of magnesium is recommended. Cardiac work up should be offered to screen for risk factors of cardiac arrhythmias. Long term prognosis of GS is excellent.

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MKCG MCH,Berhampur

Abstract

INVOLVEMENT OF CORTICOSPINAL TRACT IN WILSON DISEASE -A RARE ENTITY

Dr Monalisa Sabar

Introduction

Wilson disease is an autosomal recessive disorder caused by mutation in the ATP7B gene which encodes a membrane bound copper transporting ATPase. Consequence of this defect are the impaired copper metabolism and leads to cupper intoxication.Wilson disease is a rare disorder with prevalence of 0.5 case/100000.

Materials

A 24-year female presented to opd with complains of unable to walk with slurring of speech and dysphagia for 4 months. O/E-Pt unable to stand due to trembling of feet,bulk-normal all 4 limbs,power 5/5 all 4 limbs,hypertonia of all 4 limbs.Jerks -knee,ankle,triceps,biceps-exaggerated.ankle clonus present,b/l plantar extensor,no sensory involvement,no bladder and bowel involvement.Attitude-Grosteque position of lower limb present.Bat wing tremor present.

Observation

K-F ring present on slit lamp examination, low serum ceruloplasmin, high 24 hr urinary copper.

Conclusion

Wilson disease is raredisease with prevalence of 1 in 30,000.Among all neurological manifestation only 3% pt. have pyramidal sign.K-F ring present in >99% of pt. with neurologic/ psychiatry form of disorder.Early diagnosis of the disease has a better prognosis with adequate pharmacological therapy. In the contrary,the natural course of the disease is characterized almost inevitably by progressive deterioration leading to death due to liver or neurological disease.

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VIMSAR, Burla, Sambalpur

SPECTRUM OF IRON PROFILE IN PATIENTS OF CHRONIC KIDNEY DISEASE

Dr. Priya Jena, Dr. Satya Ranjan Sethy, Dr, Jagannath Sarangi

Background

Anemia is a common and early complication of chronic kidney disease patients. The most important contributing factor is iron deficiency.

Aims

1. To observe the iron profile in chronic kidney disease.

2. To compare the iron profile between patients on hemodialysis versus patients not on hemodialysis.

Methods

It is a cross-sectional study conducted in the Department of Medicine. Total of 176 patients were included in our study who satisfied the diagnostic criteria of CKD and patients underwent clinical and renal parameters, haematological profile and iron status.

Results

Our study results showed low level of Haemoglobin with increase in severity of CKD. Anemia was universal. Normocytic normochromic anemia was found in 94 % and microcytic hypochromic anemia in the rest. In patients on haemodialysis, iron deficiency was found in 10%, anemia of CKD in 51% and anemia of inflammation in the rest 39%. In patients not on haemodialysis, prevalence of iron deficiency was 1%, whereas anemia of CKD was 67% and anemia of chronic inflammation was 32%.

Conclusion

It is vital to address this issue of iron deficiency in patients with CKD to find the cause and type of anemia and simultaneously treat the coexistent iron deficiency anemia in CKD patients.

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MKCG MCH, Berhampur

Abstract

CONGENITAL VARICELLA PRESENTING AS APLASIA CUTIS AND OBSTRUCTIVE HYDROCEPHALUS WITH SITUS SOLITUS (DEXTROCARDIA)

Dr. Pritish Kumar Sahoo

Congenital varicella syndrome is a rare disorder characterised by skinscars, limb deficits, cular and CNS manifestation. However congenital varicella presenting as Aplasia cutis with obstructive hydrocephalus with situs solitus is extremely rare in literature.

Aplasia cutis congenita is characterised by localised or generalised condition characterised by absence of skin. Hydrocephalus is a pressure dependent enlargement of the cerebral ventricles. Hydrocephalus caused by aqueductalanomaly is extremely rare. The patient also has dextrocardia which is an incidental finding.

I report a case of Congenital varicella syndrome presenting with generalisedtonic clinic seizure, with MRI Brain showing aqueductal stenosis with Aplasia cutis congenita on the scalp with an incidental finding of situs solitus (Dextrocardia).

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VIMSAR, Burla, Sambalpur

A CASE OF NEURO-PSYCHIATRIC WILSON'S DISEASE

Dr. BibhutiBhusan Jena

Introduction

Wilson's disease is an inherited human disorder of copper transport that primarily impacts the liver and brain. This reflects the critical need for homeostatic mechanisms to properly utilize this trace metal, both systemically and in the central nervous system. The condition results from variants in ATP7B, a highly evolutionarily conserved P-type ion-motive ATPase that normally mediates copper ion removal from the liver via biliary excretion and prevents brain copper accumulation.

Abstract

A 17-year-old male presented with chief complaint of distension of abdomen and discoloration of eye. On examination There was icterus, visible KF ring, gynecomastia and on abdominal examination gross ascites was found. On biochemical evaluation 24 hour urinary copper is 60.39, serum ceruloplasmin <0.1, total serum copper 15mg/dl. On slit lamp examination, bilateral kf ring was found. On MRI-Bilateral Hyperintensity involving basal ganglia was found. With the clinical examination, biochemical evaluation and radiological evidence we concluded this case as a case of neuro-psychiatric Wilson disease.

Treatment

Symptomatic treatment like limited intake of fluid and salt with medication eplerenone. For disease proper, patient was treated with zinc.

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SCB MCH, Cuttack

Abstract

STUDY OF PREVALENCE OF THYROID DYSFUNCTION IN SEROPOSITIVE HIV PATIENTS

Dr. Sheshadev Kumbhar, Dr. Sarat Chanda Singh
Dr. Tushar Kantee Behera

Background

HIV is a global pandemic with cases reported from every country with 38.4million people living with AIDS/HIV in 2021.A subtle change in thyroid dysfunction is more common in HIV infection and at times detectable in the early phases of disease and as well as in late phases. The changes in TFT are HIV specific and are consistent with an abnormal response to acute illness. However, there is a paucity of Indian studies that are needed to evaluate thyroid dysfunction in HIV-infected patients.The study aimed to evaluate theprevalence of thyroid dysfunction in seropositive HIV patients visiting SCB MCH, Cuttack.

Methods

This cross-sectional and observational study conducted from November 2021- November 2022 took 50 seropositive HIV patients after satisfying inclusion and exclusion criteria who attended opd/indoor of Dept. of General medicine, SCB MCH. Their thyroid status is ascertained after history taking, physical examination, and TFT report. Then the prevalence of thyroid dysfunction among our study population is determined and it is correlated with CD4 counts.

Results

The prevalence of thyroid dysfunction was 28% in our study group. Among them, Subclinical hypothyroidism (71.5%)as being the most common thyroid dysfunction followed by Hypothyroidism (21.4%) and Subclinical hyperthyroidism (7.1%). The prevalence of thyroid dysfunction was highest with CD4 count <200 (57%) followed by CD4 count 200-500 (35.7%). Application of one-way Anova test shows that low CD4 count was significantly associated with thyroid dysfunction (p= 0.013, Statistically significant).

Conclusion

Subclinical hypothyroidism is the most common type of thyroid dysfunction in seropositive HIV patients. Thyroid dysfunction is common with lower values of CD4 count.

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SCBMCH, Cuttack

DEFICIENCY OF PROTEIN S, FACTOR V - A RARE CAUSE OF YOUNG ONSET CEREBROVASCULAR ACCIDENT

Dr Sunil Kumar Bihari

Background

Cerebrovascular accident is abrupt onset neurological deficit due to any vascular cause.There are many causes of young onset CVA.It can be ischemic or hemorrhagic.Coagulation cascade plays a major role in thrombus formation.One rare cause of ischemic stroke is protein S and factor V deficiency.

Aim

To study deficiency of Protein S, factor V as a rare etiology of young onset CVA.

Methods

In this case we describe a case of 15-year-old female with CVA infarct with hemorrhagic transformation who presented to the hospital with sudden onset weakness of right side of body.In CT Angio there is luminal narrowing of left proximal common carotid artery and left mca. On further evaluation it was found that she had protein S and factor V deficiency.She was discharged with atorvastatin 40mg and physiotherapy was advised.After one month patient was followed up and she was doing well.

Conclusion

Anticoagulant proteins such as protein c protein s factor v antithrombin ||| plays a major role in preventing thrombus formation. An early diagnosis can prevent further attacks.

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SCBMCH, Cuttack

Abstract

PYOMYOSITIS AN ATYPICAL PRESENTATION

Dr. Shayri Chakraborty, Dr. Tushar Kantee Behera

Background

Pyomyositis is an infective condition with primary involvement of skeletal muscles manifesting as single or multiple intramuscular abscesses. Originally reported in tropical areas of Asia and Africa. Male predominance is usually seen and more common in younger age group and previous studies have shown it usually involved largest muscle groups located around the pelvic girdle and lower extremities.Most common pathogen: staph aureus. However, culture reports may be sterile.

Case Report

A 62-year diabetic female on OAD presented with fever for 7 days and pain over the forearm near left elbow joint and over the left palmar aspect handwith history of chronic knee pain. No history of similar complaints in the past. She was diagnosed with RA and prescribed DMARDS to which she was non-compliant on presentation to OPD.

Clinical Examination

Diffuse swelling over the lateral aspect of upper one third of the left forearm with tenderness underlying compartment felt firm. ESR CRPQ TLC: RAISEDRA Factor was negative. HbA1c was 11.8, Knee joint radiography: bilateral OA,diagnosis of pyomyositis was made based on ultrasound findings, with supportive history pathological evidence of pyogenic abscess, 2 cultures done were found to be sterile, blood culture also sterile.

Result

Incision and drainage done with healing by secondary intention and amoxicillin clavulanic acid 625 with tab Metronidazole 400 TDS for 1month patient discharged with follow up at 1 month showing complete heal of abscess site.

Conclusion:

Pyomyositis presents without classical signs of abscess I.e., Local rise of temperature and swelling is an important differentiation to consider in cases presenting with muscle pain with fever. Upper limbs though uncommonly reported might also be involved.

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SCBMCH, Cuttack

STUDY OF PROGNOSTIC SIGNIFICANCE OF CREACTIVE PROTEIN IN PATIENTS WITH ACUTE ISCHEMIC STROKE

Dr Deepak Kumar Nayak, Dr Rina Mohanty

Introduction:

Stroke is one of the leading causes of death after ischemic heart disease and malignancy .C reactive protein is an annular protein whose concentrations rise in response to inflammation. Recent studies have found a consistent relationship between CRP and cerebrovascular events.

Aims and objective:

To assess CRP levels in patients with acute ischemic stroke, correlate CRP levels at admission and discharge with outcome at 6 months, determine prognostic significance.

Methods:

The study is a prospective observational study among 100 cases of acute ischemic stroke. Detailed history, physical examination, neurological examination, CRP levels and necessary investigation were done.

Results:

Maximum number of patients were found to be between 61 – 70 years with majority being male. The commonest vascular territory was partial anterior circulation (46.7%) followed by lacunar stroke (14%). There was no significant difference between the incidence of risk factors in the three groups of patients.

Conclusions:

CRP is a marker of inflammation whose level raises significantly in patients of ischemic stroke and degree of rise indicates severity of stroke. Patients with higher CRP levels had higher mortality rates and adverse outcomes. CRP may be considered as reliable and cheap independent prognostic marker in predicting the severity in ischemic stroke.

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SCBMCH, Cuttack

Abstract

CEREBRAL VENOUS SINUS THROMBOSIS IN SICKLE CELL DISEASE

Dr Snigdha Patel

Introduction

Cerebral venous sinus thrombosis includes thrombosis of cerebral veins and dural sinuses, is a rare disorder associated with hypercoagulable state that can present with symptoms like headache,seizures and alteredsensorium, focal neurological deficit and signs of raised intracranial hypertension.

Case Report

18-year-old female presented with headache and vomiting for 10 days,multiple episodes of focal convulsions and weakness in left side of body 5 days. Patient is known case of sickle cell disease.O/E-BP-130/70 mmHg,PR-82/min,consious oriented,pallor and splenomegaly present.CNS examination showing plantar-extensor,exaggerated deep tendon reflexes,power 2/5 both upper and lower limbs of left side.

Investigations

Hb-7.2g/dl, HPLC-SS,TLC and TPC normal.MRI Brain – ill-defined area of T2W/FLAIR hyperintensity with diffusion restriction involving right parietal white matter(?ACUTE INFRACT) and loss of flow involving superior sagittal sinus,right transverse sinus with right parietal region cortical veins.MR VENOGRAM OF BRAIN-Loss of flow involving the entire length of superior sagittal sinus,right transverse sinus and right fronto-parietal region cortical veins suggestive of venous sinus thrombosis of all these venous sinuses.

Conclusion

Sickle cell disease, is a rare cause of cerebral venous sinus thrombosis, so any patient of SCD with neurological manifestation should undergo early brain imaging to prevent morbidity and mortality.

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VIMSAR, Burla,Sambalpur

A RARE CASE OF DISSEMINATED CYSTICERCOSIS

D.Tom GeoJames, Dr. P. C. Karua

Introduction

Disseminated Cysticercosis is a rare form of cysticercosis in which the cysticerci spread throughout the whole bloody. Fewer than 120 cases have been reported worldwide.

Case Details

A 64-year-old male patient was admitted to our hospital after an elephant attacks. on routine chest X-ray, he found to have many opaque lesions and was referred to general medicine. Physical examination was normal in the patient. After doing x-ray of the abdomen and thighs, CT scan and CECT of brain, fundoscopy, he was diagnosed as having cysticercosis involving brain, subcutaneous tissue, and skeletal muscles throughout the body. Since patient was asymptomatic and lesions were calcified, no specific treatment was given.

Discussion

Pork tapeworm Taenia solium can cause 2 distinct forms of infection adult tapeworm in the intestine by ingesting undercooked pork and human cysticercosis following ingestion of T. Solium eggs. Cysticercosis can be Seen in brain, CSF, eyes, muscle, subcutaneous tissue. Neurocysticercosis can present as raised ICT, hydrocephalus, seizure, meningitis or even asymptomatic, as in this case.

Conclusion

Neurocysticercosis can have disseminated presentation and can be even an incidental finding too.

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VIMSAR, Burla

Abstract

POLYMYOSITIS AS A RARE MANIFESTATION IN OVARIAN TERATOMA

Dr Vaibhav Balakrishna Gowda, Dr. Bipin Kishore Kullu

A case of a 35-year-old female patient came with 5 months history of chronic progressive symmetrical proximal muscle weakness of both upper limb and lower limbs with drooping of neck and dysphagia and with associated significant weight loss. Patient was diagnosed with right ovarian cystic teratoma one year back for which she had undergone right salpingo-ophorectomy. On examination patient was having weakness, atrophy and tenderness of proximal muscles of both upper limb and lower limb with weak neck extensors with diminished reflexes. Investigations revealed transaminitis with raised total CPK and LDH. CECT abdomen revealed a lesion in liver suggestive of metastasis. EMG revealed myopathic pattern.NCS was suggestive of axonal neuropathy. Muscle biopsy was suggestive of inflammatory myopathy. Patient was started with tab prednisolone 1mg/kg and patient showed improvement thereafter.

Conclusion

Polymyositis as a paraneoplastic manifestation of ovarian teratoma is a rare presentation. Hence a full malignancy workup is therefore recommended in cases of polymyositis.

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VIMSAR, Burla, Sambalpur

CAROLI'S SYNDROME - A COMMON PRESENTATION OF A NOT SO COMMON DISEASE

Dr Amit, Dr Gouri Oram

Introduction:

Caroli's syndrome is a rare congenital disorder characterised by multifocal segmental non-obstructive saccular or fusiform dilation of the intrahepatic bite ducts. Two imporatant forms have been described: Caroli's disease which is a bile duct ectasia and Caroli's syndrome which is associated with congenital hepatic fibrosis.

Case Report:

A 23year old female presented with yellowish discoloration of eyes, abdominal distension, swelling of both feet for 5days. Non alcoholic, non smoker. Past history of yellowish discoloration of eyes 15yrs back and 2yrs back for which she had taken Ayurvedic medication and was evaluated for recurrent jaundice.

O/E:

B/L pitting type of pedal oedema along with pallor. Shifting dullness of abdomen present, fluid thrill absent. Liver border palpable 3cm below costal margin and non tender.

Lab Investigation:

CBC showed pancytopenia. AST>ALT. Sr. Albumin-2.4g/dl. USG Abdomen: coarse echotexture of liver, splenomegaly and ascitis. NCCT Abdomen showed dilated intra-hepatic biliary ducts. CEET Abdomen and MRCP revealed cystic dilation of intra-hepatic bile ducts and sequale of portal hypertension, no evidence of HCC, consistent with Caroli's syndrome. HbsAg and HCV: non reactive. ANA profile: negative. Anti Smooth muscle and Anti LKM Antibodies: negative. Sr. Ceruloplasmin: Negative. Upper GI Endoscopy showed Gr 2 esophageal varices

Discussion:

Definitive diagnosis requires liver biopsy but many patients can be diagnosed based on imaging studies such as CT or MRI.

Treatment- Endoscopic therapy, Chronic Antibiotic therapy, hemi hepatectomy and liver transplant.

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VIMSAR, Burla, Sambalpur

Abstract

RHEUMATOID VASCULITIS: A RARE COMPLICATION OF RHEUMATOID ARTHRITIS

Dr Dipleshdeep Goyal, Dr Amartya Basu, Dr Piyali Sengupta, Dr Bhavesh C. Khatua, Dr Lalatendu Mohanty

Introduction:

Rheumatoid arthritis (RA) is a chronic systemic inflammatory autoimmune disease. It's main manifestation involves articular joints which has destructive potential and extra articular manifestations with involvement of other organ systems Such as skin, heart, lungs, muscles and blood vessels rarely leading to rheumatoid vasculitis. Rheumatoid vasculitis is rare (1%) and dreadful complication of systemic disease of RA involving skin and blood vessels.

Case Report:

Here is case Of 57 year old male known case of Rheumatoid arthritis ,Who was non complaint to treatment and presented with Non healing ulcers on right side of foot and amputation of 2nd and 3 rd digits due to gangrene 2 months back .Both bilateral upper and lower limbs show deformities. Investigations shows increased inflammatory markers were raised and anti CCP and RA factor positive, doppler study of limbs shows normal report .Therefore on the basis of reports and clinical features patient was diagnosed with rheumatoid vasculitis.

Discussion:

Rheumatoid vasculitis is among the most serious complications of RA. Fortunately, its prevalence appears to be declining due to newer RA treatments, including biologic therapies which offer a broader array of potential therapeutic options. In general, the severity of organ involvement and disease manifestations can guide treatment decisions. Evolving genetic, histopathological and immunological studies with ongoing clinical experience of biological agents helps in further prevention and treatment of rheumatoid vasculitis.

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KIMS, Bhubaneswar, Odisha

HYPOKALEMIA – A DISORDER WITH A SPECTRUM OF POSSIBILITIES

Dr Sagnik Roy, Dr Niranjan Mahapatra

Introduction:

Hypokalemia occurring as result of metabolic derangement may be associated with a spectrum of renal disorders, along with underlying autoimmune diseases. A case of hypokalemia resistant to conventional treatment should raise a suspicion for some underlying pathophysiological process which demands further evaluation.

Objectives:

Evaluation of a case of hypokalemia resistant to conventional treatment, to look for renal loss and establishment of its associated disorders.

Case Details:

A 34 years old female admitted with weakness and difficulty in walking since 10 days which was preceded by episodes of vomiting. On examination, neurological causes of lower limb weakness was excluded. Hypokalemia was seen in routine biochemical examination. On further work-up urinary K+ loss and high urinary pH was seen and NAGMA pointed to diagnosis of Distal RTA. USG showed Medullary nephrocalcinosis. To rule out the presence of auto-immune causes ENA profile was sent and Anti SS-A, SS-B, Ro-52 was positive in high titres suggestive of Sjogren syndrome but surprisingly without any classical features of Sjogren syndrome so a diagnosis of Hypokalemia with Distal RTA with Atypical Sjogren Syndrome was made. Patient was discharged with multiple immuno-suppressants and citrate supplementation.

Conclusion:

A case of hypokalemia without any common precipitating cause if extensively evaluated according to standard guidelines may decipher some rare associations which throws light upon the prevalence of these atypical syndromes and improves the quality of life to a large extent.

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Department of Medicine
SCB MCH, Cuttack

Abstract

RHEUMATOID VASCULITIS; A RARE PRESENTATION OF RHEUMATOID ARTHRITIS

Dr Sunil Kumar Mohapatra, Dr Sarit S Pattnaik

Background

Rheumatoid arthritis is a chronic systemic inflammatory autoimmune disease that presents commonly as persistent synovitis affecting symmetrical peripheral joints. However, evolution of RA is highly variable. Rheumatoid vasculitis is a rare complication of RA; which involves small and medium sized vessels. Systemic vasculitis has been a diagnostic challenge in field of clinical medicine for years. We would like to remind clinicians of this unique yet severe complication of RA with high morbidity and mortality.

Case Description

We describe a case of a 47-year-old female with inflammatory polyarthritis involving both small and large joints for 11 years now presented with new onset burning sensation in all four limbs with cutaneous gangrene in bilateral upper limb, left lower limb along with history of recently diagnosed DCM. Considering DCMP & Peripheral eosinophilia, possibility of EGPA was considered but P-ANCA was negative. X ray showed erosion, decreased joint space suggesting RA with high RF titer and Anti-CCP positivity. Hence the case was labelled as Rheumatoid vasculitis and the patient was started on high dose steroids and cyclophosphamide with which there was marked improvement in the symptoms.

Conclusion

Rapid detection and treatment requires a high level of alertness to ensure a better prognosis and avoid the complications and morbidity associated with this serious form of rheumatoid vasculitis.

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SCB MCH, Cuttack

A RARE CASE OF SCRUB TYPHUS PRESENTING WITH MYOCARDITIS

Dr. Sarada Priyadarshini Suna
Dr. Gouri Shankar, Dr. Shivam

Background:

Scrub Typhus infection is one of the common Tropical Infection in the state of Odisha. As per a study, most patients with Scrub Typhus have Hepatomegaly (96.3%), Lymphadenopathy (81.5%) and Splenomegaly (81.5%). Cardiac involvement remains one of the rare and un-explored domains in people suffering from Scrub Typhus Infection.

Aim:

The aim of this study was to describe clinical profile of Myocarditis in a patient suffering from Scrub Typhus infection.

Case Report:

A 37-year-old female patient presented with Fever for past 8 days and shortness of breath for past 4 days. She had a history of Hypothyroidism for which she was taking Levothyroxine regularly. Emergency management of the Airway and Breathing was done using NIV. Three days later, while her respiratory symptoms started to resolve, she developed unexplained tachycardia. ECHO study revealed Global Hypokinesia of LV, dilated LV with reduced EF. A suspicion of Myocarditis was done. ProBNP was elevated and Trop I was also mildly elevated. Patient was treated for the same and 5 days later repeat ECHO revealed normal LV Systolic function and resolution of dilation. However, tachycardia persisted for 10 more days along with gradual resolution of other symptoms.

Conclusion:

Myocarditis in people suffering from Scrub Typhus infection is one of the rare complication of the disease. However, considering its severity, it is imperative that clinical suspicion should be high in affected people. Unexplained tachycardia with new sudden onset heart failure remains one of the clinical parameter which should rise suspicion of myocarditis in Scrub Typhus affected individuals. Cardiac biomarkers and follow up using ECHO are the other essential parameters that should be sought for. Early diagnosis and treatment could reduce mortality and morbidity in the affected individuals.

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KIMS, Bhubaneshwar

Abstract

A STUDY OF THE CLINICAL PROFILE AND RARE COMPLICATION OF "ALL" IN A TERTIARY CENTRE

Dr Shubham Desale, Dr Lalatendu Mohanty, Dr Bishwajit, Dr Shailina, Dr Harsha

Background :

Acute lymphoblastic leukaemia is the most common childhood cancer. Treatment may include chemotherapy and supportive therapy. Underlying case reports shows all may be considered one of the cause of thrombosis in the patient of all with normal platelet count.

Method :

It is a case of 50 year old female diagnosed with all in the tertiary care centre on 20/11/22 . At presentation CBC shown WBC count of 80k platelet count 186 k. Bone marrow aspiration shows myeloid hyperplasis lymphocytes within normal. The diagnosis was established by imunophenotypic analysis shown 28 percent abnormal blast, precusor lymphoid neoplasm, b cell lymphoblastic leukemia / lymphoma, hla dr 5 positive, cd 45/38/ /3/10/19/22 positive which confirms the diagnosis that it is a case of all . 2d echo shows 0.8 x 0.7 cm mobile thrombus in right ventricle.

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KIMS, Bhubaneshwar

STUDY OF THE CLINICAL PROFILE AND IT'S CORRELATION WITH NEUROIMAGING STUDY IN POSTERIOR CIRCULATION STROKE

Dr Susen Kumar Patro

Background:

Strokes syndromes are classified into anterior & posterior circulation strokes based on the blood supply. The posterior circulation has a much higher incidence of asymmetric hypoplastic arteries of variable blood supply & of retention of fetal circulatory patterns than the anterior circulation. This study was carried out to determine the various clinical & radiological patterns of posterior circulation stroke.

Aims:

To study the clinical profile & observe the radioimaging patterns in posterior circulation stroke.

Methods:

A cross sectional, observational study was conducted among 90 patients who had sign,symptoms & radioimaging evidence of posterior circulation stroke.

Results:

Incidence of posterior circulation stroke was 12.40% and M:F ratio was 4:1. The common manifestation were motor disturbances (62%), altered sensorium (57%), headache (55%), speech (47%) & visual disturbances (46%). The neurological findings were altered sensorium (57%), motor disturbances (67%), cranial nerve involvement (53%) & cerebellar signs (38%). Among posterior circulation stroke, ischaemic was 76% & Infratentorial infarcts were 81%, among them Cerebellar infarcts (49%) was most common. Incidence of mortality was higher in hemorrhagic than ischaemic strokes. (51% vs 26%).

Conclusion:

Posterior circulation stroke was more common in males with hypertension being the most common predisposing factor. Cerebellar infarct was most common but haemorrhagic stokes had high mortality.

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MKCG MCH, Berhampur

Abstract

EPIPERICARDIAL FAT NECROSIS – A RARE, BENIGN CONDITION OF ACUTE CHEST PAIN. NEWER DIAGNOSIS OF EXCLUSION?

Dr Aggarwal L, Dr Chikkam S, Dr Pattnaik S
Dr Khora P, Dr Patro S, Dr Mohanty L

Background:

Epipericardial Fat Necrosis is a self-limiting inflammatory condition. Incidence is only 2.2% according to USA data. Condition was first described in 1957 by Jackson et al.

Case Report:

We present a case of a 65-year-old female, presented with acute chest pain, left side, which increased on inspiration, for 2 hours. Bilateral normal vesicular breath sounds and no murmurs were heard on clinical examination. Creatinine kinase, Troponin I levels were normal. D-Dimer was negative. ECG was non-specific. ECHO and Doppler studies were normal. CT Angiography was done to rule out pulmonary embolism. Epipericardial fat necrosis was diagnosed on CT thorax.

Conclusion:

Exact pathophysiology is unknown. Acute torsion of vascular pedicle supplying Fatty tissue or presence of structural anomalies (Lipoma/Hamartoma) causing compression and shearing are two most probable mechanisms proposed. Diagnosis is made on CT thorax and conservatively managed on NSAIDS. Incidence of Epipericardial Fat Necrosis will continue to rise owing to the increasing quality and use of imaging. Awareness among clinicians is required to avoid misdiagnosis and unnecessary interventions.

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KIMS, Bhubaneswar, Odisha

A CASE REPORT ON IDIOPATHIC MEMBRANOUS NEPHROPATHY IN A FEMALE PATIENT FROM WESTERN ODISHA.

Dr Subhalaxmi Dash, Dr Malati Murmu
Dr Sourabh Shristi

Introduction:

Membranous Nephropathy is one among the most common causes of Nephrotic Syndrome in nondiabetic adults accounting for up-to one third of nephrotic syndrome. The term Membranous Nephropathy reflects the primary histologic changes noted on Light Microscopy i.e. Glomerular Basement Membrane thickening with little or no cellular proliferation or infiltration with subepithelial deposits.

Case Report:

A 45year old female presented with facial puffiness and swelling of both feet since 1 month, not associated with decrease in urination.

No history of similar episode in past.

On clinical examination, B/L pitting pedal oedema was present along pallor.

Lab Investigation:

CBC: Hb-7.4g/dl, Peripheral smear-normal, WBC-5500

Sr. Creatinie-1.3mg/dl

24hr urine protein-3070.40mg/day

HBsAg- Non reactive

HCV- Non reactive

ANA- Negative

Other baseline investigation- Normal

Renal Biopsy: Immunofluorescence- IgG(+3) & C3(+1) show **granular positivity** on the capillary loops.

Light Microscopy- Normal cellularity. Capillary lumen is patent.

Spike formation is seen diffusely on Glomerular Basement Membrane.

Conclusion:

With the above renal biopsy finding Patient was diagnosed as Idiopathic Membranous Nephropathy and was advised immunostaining with **PLA2R and NELL-1 antibodies** for management. Membranous Nephropathy is also known as one-third disease as one-third cases lead to relapse, one-third undergoes remission and one-third progress to Chronic Kidney Disease.

Timely detection and appropriate management can prevent further progression.

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VIMSAR, Burla

Abstract

MSA TYPE-C IN ELDERLY MALE; A CASE REPORT

Prof. Dr Jayanta Kumar Panda
Dr A. Kerketta, Dr Santoshi Shamad

Aims & Objective

To assess clinical manifestations of a rare case of Parkinson Plus Syndrome.

Methods

A 65 year Male diagnosed with Parkinson's Disease on Levodopa for 2 years was admitted to our ward due to poor response to treatment . After detailed clinical history and examination , "Parkinson Plus Syndrome" was suspected. Then Pt was subjected to radiological assessment for further evaluation.

Result

MRI brain shows severe atrophy of pons, cerebellum, atrophy of cerebellar peduncle,T2- FLAIR hyperintensity in pons suggestive of Multiple system atrophy type C.

Conclusion

A multidisciplinary approach, as was taken with our patient, is vital to ensure encouraging result. Attention to the few characteristic features will lead physicians to diagnosis & improve subsequent management.

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SCB MCH, Cuttack

ASSOCIATION OF SERUM QUANTITATIVE C-REACTIVE PROTEIN AND FERRITIN LEVELS IN PATIENTS OF ACUTE CEREBRO-VASCULAR ACCIDENT (CVA).

Dr. Suvashree Panda[1], Dr Pratima Kumari Sahu[2]
Dr. Bhagyashree Panda[3]

Introduction:

Stroke or cerebrovascular accident (CVA) is defined as an abrupt-onset neurological deficit attributable to a focal vascular cause. CVA is the third leading cause of death after heart diseases and cancer and is now emerging as the most common preventable life-threatening neurological problem, worldwide. In India, the incidence rate is 119-145/100,000 based on the recent population-based studies. Our case control study aims to find an association between the CRP(Q) and ferritin levels in acute CVA cases.

Methods:

We evaluated the serum ferritin and CRP in 50 clinically and CT-scan diagnosed patients of CVA and an equal number of matched healthy volunteers within 12hours of admission. Serum ferritin was estimated by chemiluminescence and serum CRP levels by spectrophotometry. The normal range of ferritin was taken as 15 to 400 ng/ml and CRP(Q) as <6mg/dl.

Result:

Average Serum CRP(Q) was 26.5 mg/dl whereas in control group it was <8mg/dl. The mean serum ferritin levels at admission were 195 ng/mL in acute CVA cases while the control group had a mean of 44 ng/mL. P-value for CRP(Q) and ferritin in acute CVA cases was <0.001.

Conclusion:

Study showed significant association between higher ferritin concentrations and CRP levels with acute CVA as compared to the control group and can be important prognostic factors which needs to be studied further.

Keywords: Cerebro-vascular accident, CRP, Ferritin.

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[1]Postgraduate student, [2]Professor and HOD
Department of Biochemistry
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SCB MCH, Cuttack

Abstract

SICKLE CELL INTRA HEPATIC CHOLESTASIS - A RARE LETHAL COMPLICATION OF SICKLE CELL DISEASE – A CASE REPORT.

Dr. Bishnuprasad Chinhara, Dr Bijayalaxmi Parija
Dr. S. K Jangid, Dr. Kali Kinkar Chand

Introduction

Patients with Sickle Cell Disease can develop Liver Disease as a result of Intrahepatic Sickling of Erythrocytes, Viral Hepatitis, Iron Overload; secondary to Multiple Blood Transfusions & Gallstone Disease as a result of Chronic Haemolysis. The Patient present with sudden onset of RUQ pain, Progressive Hepatomegaly, Elevation of Transaminases, Coagulopathy and Extreme Hyperbilirubinemia. Sickle Cell Intrahepatic Cholestasis (SCIC) is a rare & extreme variant of Sickle Cell Hepatopathy and associated with high fatality.

Case Summary

We present the case of a 15-year-old Male with past medical history of Sickle Cell Disease (Homozygous HBSS Positive) who was admitted from Medicine OPD with complicated Vaso-Occlusive Crisis: Showing signs of Severe Jaundice, Abdominal Distension, B/L pedal edema and Altered sensorium. There was an accelerated rise in **Total Bilirubin to 30.28 mg/dL, Direct Bilirubin 15.76 mg/dL** and **Cr - 2.02 mg/dL**. **Hb was 2.7 g/dL** with **Reticulocyte Count 17.5%**. His **LDH is – 2412 IU/L, ALT - 31 IU/L, AST - 164 IU/L, ALP - 135 IU/L, INR – 7.33, PT – 86.5 seconds, aPTT – 299 seconds.** Hepatitis & HIV panel was negative and USG showed no obstruction in CBD with Moderate Ascites & Hepatomegaly. Patient was transferred to ICU following which Intubation was done and Treated with PRBC, FFP, Broad spectrum Anti-Biotics, Rifaximin, Lactulose and Other Supportive drugs. But the patient scummed within 72 hours with best possible efforts.

Conclusion

SCIC associated Chronic Liver Disease, unlike the other hepatopathies, requires urgent and vigorous exchange transfusion. Renal impairment in SCIC with CLD is usually reversible with the hepatic function restoration. SCIC occurs in 9% cases of Sickle Cell Disease with High Fatality. A timely diagnosis of SCIC and appropriate management is life-saving.

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Hi-Tech MCH, Bhubaneswar

RARE CASE OF MADRAS VARIANT OF MOTOR NEURON DISEASE

Dr Shamli Mishra, Dr. Manoj Kumar Mohapatra

Introduction

Madras variant MND, a rare entity is characterized by multiple cranial nerve palsies(7-12) and atrophy of limbs.

Background

A 26 year old male presented with complaints of difficulty in hearing, hoarseness of voice, since 1 year and weakness of lower limbs since 10 days without any sensory, bowel and bladder symptoms. On examination, his vitals were stable. Cranial nerves examination revealed abnormality in the form of b/l sensorineural hearing loss, weakness of b/l facial muscles with fasiculations, absent gag reflex with atrophy and fasiculations of the tongue. There was significant wasting of muscles of face, upper and lower limbs with hypotonia in upper and hypertonia in lower limbs. Reflexes were feeble in upper limb and exaggerated in lower limb. On investigation EMG-NCS showed chronic partial denervation of all muscles with reduced recruitment.

Conclusion

Very few cases of Madras variant of MND have been reported due to rare combination of features and often misdiagnosed.

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VIMSAR, Burla

Abstract

CARDIO-PULMONARY MANIFESTATIONS OF SICKLE CELL DISEASE

Dr. Shamli Mishra

Aim

To Study the cardiac and pulmonary manifestations of sickle cell disease.

Methods

This observational study was conducted in 20 adults diagnosed as cases of sickle cell disease (SCD) using convenience sampling. The age, sex, ECG, chest X ray, PFT and 2D Echocardiography of these patients were recorded for this study.

Results

The distribution of male and female with SCD were 65% and 35%, respectively with average age of 29.46 and 28.28 years respectively. The average TLC count and hemoglobin levels were observed to be 10460.50±866 and 8.07± 0.31, respectively. 35% of patients had ECG changes in the form of LVH and 1st degree AV Block and 45% had x-ray and PFT changes. The 2D echo parameters were also abnormal in the form of pulmonary hypertension and LV dysfunction.

Conclusion

From the study,it can be concluded that cardiopulmonary complications can be a major cause of mortality in SCD patients, hence the early diagnosis of LVDD and lung function abnormality is a prerequisite.

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VIMSAR, Burla

PANCREATICO-PLEURAL FISTULA A RARE COMPLICATION OF BOTH ACUTE AND CHRONIC PANCREATITIS

Dr Rishab Garg, Dr Chandan Das, Dr Samir Sahu, Dr Siba Prasad Dalai, Dr Meghanad Meher, Dr Brijresh Swain, Dr Nalinikanta Sahoo Dr Ayush Dubey, Dr J Vihari

Background-

Pancreatico Pleural Fistula (Ppf) Formation Occurs Rarely In About 1% Patients With Acute Pancreatitis And 0.4%

Patients With Chronic Pancreatitis. Ppf Is An Abnormal Communication Between Pancreatic Duct And Pleural Space.here We Present A Case Of Massive Left Sided Pleural Effusion, Secondary To Ppf Due To Chronic Pancreatitis.

Case Report :

A 28 Year Old Male Presented With Complains Of Shortness Of Breath, Chest Pain And Dry Cough Since Last 2 Months

For Which Patient Was Treated Outside With H/O Twice Thoracocentesis Setting And Was Managed Conservatively. Patient Is A Chronic Alcoholic With No Past H/O Any Other Comorbidities.

Examination : General Exam Revealed No Abnormality.

On Systemic Examination There Was Left Sided Massive Pleural Effusion.

On Biochemical Examination : Tlc- 13,540, Hb-12.7, Tpc-167000, Neurotrophils- 79 %, Lymphocytes 10.8%, Esr-116(corrected-102), Serum Ldh-148 U/L

On Pleural Fluid Examination: Hemorrhagic Exudative Fluid With Total Cell Count Of 3000 Cells/ Cu Mm With 80% Polymorphs With No Dysplastic Or Malignant Cells With Normal Ada. Afb And Cbnaat Was Negative. Pleural Fluid Amylase-362iu/L And Lipase- 3202 Iu/L. On Radiological Examination-there Is Left Sided Empyema Thoracis And Chronic Pancreatitis With Pancreatico-pleural Fistula. Patient Was Then Planned For Ercp + Pd Stenting With Nj Tube Placement Along With Ict Drainage.

Conclusion:

Ppf Is An Uncommon And Serious Complication Of Chronic Pancreatitis. High Index Of Suspicion Arise When Chronic Pancreatitis Patient Presented With Pulmonary Symptoms. Elevated Amylase And Lipase Level In Pleural Fluid Along With Radiological Demonstration Of The Fistula Is The Key For Diagnosis. Multidisciplinary Approach Is Needed For Management.

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IMS & SUM Hospital, Bhubaneswar

Abstract

POLYMORPHIC VENTRICULAR TACHYCARDIA AS A PRESENTATION OF PRIMARY HYPERALDOSTERONISM IN A NORMOTENSIVE

Dr Sangeeta Rout

Introduction

Primary Hyperaldosteronism is one of the commonest causes of endocrine hypertension. It can be due to adrenal adenoma, hyperplasia or carcinoma causing hyper secretion of aldosterone with suppressed renin levels and results in hypertension with or without hypokalemia and hypernatremia. Usually, the presentation is of chronic hypertension but acute presentation may occur due to electrolyte disturbance, especially hypokalemia.

Case Study

A 50-year-old-woman with no past medical history presented with headache, dizziness and palpitations. She had brief episode of loss of consciousness, ventricular tachycardia was reported on ECG which was reverted. She had a BP of 120/76 mmHg and other general examinations and systemic examinations were normal.

On investigation, patient's hemogram,LFT,RFT,Sodium were normal. Patient had hypokalemia with serum potassium of 1.9 mEq/L. Urinary TTKG was 7.7 indicating renal wasting of potassium. Serum aldosterone was 25.10 ng/dl and rennin was 0.50 mIU/L with ARR of 50.2ng/mIU. CECT abdomen showed nodular hyperplasia of bilateral adrenal glands.

Conclusion

Normotensive primary hyperaldosteronism is a rarely reported entity. Normotensive PH in a patient with bilateral adrenal hyperplasia is extremely rare. Still these patients are at high risk for systemic complications because of high aldosterone levels and should be treated.

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MKCG MCH, Berhampur

FIBROCALCULOUS PANCREATIC DIABETES IN A YOUNG NON ALCOHOLIC ADULT : A CASE REPORT.

Dr Bishwajit Mund

Abstract

Diabetes Mellitus is a major global health problem with significant morbidity and mortality. Even though type 1 and type 2 are commonest , Diabetes Mellitus due to secondary causes have been identified. Fibrocalculous Pancreatic Diabetes (FCPD) is a unique form of diabetes mellitus which is secondary to chronic calcification in young non alcoholic people. Here we report a case of 36 years old male presenting with symptoms of hyperglycemia, with a history of recurrent pain abdomen and weight loss . The patient was diagnosed as FCPD based on history, biochemical and imaging test. Therefore these finding highlights the importance of appropriate investigation to make an early diagnosis to impart a proper management.

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VIMSAR, Burla

Abstract

SKELETAL FLUOROSIS: A CLOSE MIMICKER OF AXIAL SPONDYLOARTHROPATHY.

Dr. Medichetti Harish Kumar, Dr. Debashis Maikap

We present a case of Skeletal Fluorosis presenting as Spondyloarthropathy. Our patient a 44 year old female presented with pain and progressive restricted mobility of neck, hip and spine since 2 years which is decreased with activity and more at night time during sleep and at rest. A complete general physical examination revealed presence of Dental Fluorosis and restricted cervical mobility (30°-40° bilateral with right e" left) with spinal mobility restricted (Schoeber's 3cm) and bilateral hip internal rotation restricted. Acute phase reactants (CRP, ESR, RA Factor) were normal. HLA B-27 was negative . There were no other features of peripheral spondyloarthropathy. X-ray pelvis (AP View showed bilateral sacroiliitis satisfying ASAS criteria for Axial Spondyloarthropathy. Various other radiographs showed osteosclerosis, trabecular haziness, periosteal bone formation, ossification at attachments enthesis with classical interosseous membrane calcification as seen at the forearms, suggestive of skeletal fluorosis. She was treated with Vitamin-C, Vitamin B complex and Non-steroidal anti-inflammatory drugs and advised to drink defluorinated drinking water. Thus I would like to conclude by telling that in a case of seronegative axial spondyloarthropathy skeletal fluorosis as a cause for this Axial Spondyloarthropathy should be kept in mind as a deferential especially in patients of low socio-economic status.

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KIMS, Bhubaneswar

SUBACUTE COMBINED DEGENERATION OF SPINAL CORD: A RIVETING CASE REPORT ON REVERSIBLE MYELOPATHY

Dr Padmini Priyadarshini Rath, Prof Dr Jayanta Panda

Background:

Subacute Combined Degeneration of spinal cord is characterized by degeneration of the dorsal columns and the lateral columns of the spinal cord due to demyelination.

This case report depicts a case of reversible myelopathy due to sub acute combined degeneration of spinal cord , following severe B12 deficiency

Material & Method:

A 40 year old male presented with tingling sensation in hands & feet for 3 months followed by weakness of both the lower limbs & unsteadiness of gait for 1 month. There is history of alcohol consumption for last 10 years

Clinical examination revealed:

Pallor +

Glossitis

Knuckle & palmar hyperpigmentation

Power of 3/5 in bilateral lower limbs with absent knee & ankle jerk & extensor plantar response

Investigations revealed anemia with macrocytes in peripheral smear

VitB12 level was very low(<83 ng/ dl)

MRI thoraco lumbar spine: T2 hyperintense cord signal alteration from D7_D8 to D11 -D12 - Predominant affection of posterior aspect & both halves of cord , suggestive of B12 deficiency.

Nerve Conduction Study – Normal

Results:

The patient was started on Injectable B12 followed by oral VitB12 preparations as per the protocol.The cause of vit B12 deficiency was attributed to chronic malnutrition associated with alcohol consumption as rest of the parameters for B12 deficiency were normal.

At follow up of 3 months, the patient could walk of his own without support & MRI showed resolution of lesions.

Conclusion:

Myelopathy due to Vitamin B12 deficiency can be reversible & early MR imaging along with detailed clinical evaluation is the key to successful management.

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