Abstracts from the Journals of the East

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Efficacy of Bacterial Culture of Bone Marrow Versus Peripheral Blood in Laboratory Diagnosis of Typhoid Fever. Shaikh, RB., Hafiz, A., Khanani, M.R., Shaikh, S. and Rab, S.M. Pak. J. Pathol. 1994;5:27-28.

Peripheral blood and bone marrow of 151 clinically suspected cases of enteric fever were cultured for isolation of Salmonella organisms. Five ml blood from vcnepuncture and 0.5-2 ml bone marrow' from sternal puncture were aseptically collected simultaneously and dispensed into bottles containing Brain Heart Infusion broth and incubated at 37°C. Subcultures were made every 24 hours (till 72 hours) on sheep blood agar, Mac-Conkeys medium and Salmonella Shigella agar plates and incubated at 37°C. Identification of organisms was done by standard techniques.

Salmonella species were isolated within first 24 hours from bone marrow of 68 and peripheral blood of 27 cases. Of these 59 were Salmonella typhi and 9 were Salmonella paratyphi. Antibiotics had been used by 50 cases out of 68 who had a positive bone marrow culture. Of these only 10 patients had a positive blood culture. Patients who had not taken antibiotics gave an equal yield of Salmonella from both sources.

The superiority of bone marrow culture over blood culture has been reported by other workers also. With the increasing resistance of Salmonella to antimicrobial agents, it is highly desirable to isolate the causative organisms to determine the susceptibility for appropriate therapy. In endemic areas and if the patient has consumed antibiotics, bone marrow culture alone will provide the diagnosis without unnecessary delay and economically. Simultaneous bone marrow smears can also give the diagnosis of malaria, leishmaniasis and malignancies.

Role of Antitoxin in Established Cases of Tetanus. Mohiuddin, M., Hussain, J., Rahman, M. Bangladesh Mcd. J. 1993;22:5-8.

A retrospective study was conducted on 377 established tetanus cases admitted at the Infectious Disease Hospital, Dhaka, in the period March to December 1992. Antitetanus Serum (ATS) was given to 235 patients, 40 received Human tetanus immunoglobulin (TIG) whereas 102 patients got neither of the two due to non-availability. There was no significant difference in the age and sex distribution of the subjects in all three groups. Only one case had beenpreviously immunised with Tetanus Toxoid and four were partially immunised. The incubation period in all three groups was found to be 8-14 days in the maximum patients. The clinical features were classed as mild, moderate and severe and it was observed that the group receiving no antitoxin had a higher percentage of cases with mild signs and symptoms. The recovery rate of patients treated with ATS was 52%, those receiving TIG was 50% and the group without any antitoxin was 66.6%. The use of large doses of ATS in established cases has become debatable. Antitoxin can only destroy the circulating toxin but most often has not been demonstrated in the blood of patients given large doses also. There is always a high risk of anaphylactic shock, serum sickness and myocardial infarction associated with ATS therapy. Other studies conductedon similarpatterns have given comparable results. This presented study thus proved that antitoxins both human and heterologous had a doubtful role in the therapy of established cases of tetanus.

The Epidemiology and Chemical Composition of Urinary Stones: A Study at the Liaqat Medical College Hospital,Jamshoro. Samo, M.J., Khand, T.U., Memon, J.M., Khand, F.D., Ansari, A.F. Specialist, Pak. J. Med. Sci. 1995;12:61-67.

Seven hundred and fifty consecutive urinary stone patients, treated atLiaqat Medical College Hospital, Jamshoro from January 1991 to December 1992 were analysed to determine the factors associated with

stone disease. It was noted that 20.6% of the total patients had unnaiy stones. The peak age of patients with upperurinary tract (UUT) stones was 20-29 years and that for patients with lower urinaiy tract (LUT) stones was below 10 years. The male to female ratio in both groups was 3.7 to 1 and 1.16 to 1 respectively.

Lumbar pain was the commonest complaint of patients with UUT stones and burning micturition in those with LUT calculi. The right kidney and left ureter had a higher incidence of stones. Non-functioning kidneys were found in 13 patients of which 2 had hydronephrosis. Enlarged prostate was the cause of bladder calculus in 20 individuals and bladder neck obstruction was seen in 7 patients. Surgical intervention was carried out in all cases. Most patients belonged to Hyderabad (46%) and the rest came from other regions of Sind Province. Urolithiasis was encountered more in the summer months and more so in sedentary workers. Recurrence of stones was observed in 50.1% cases and a positive family history in 23.1%. Surface water was consumed by 39.7%, canal water by 28% and underground water by 3 0.7% subjects.

Infrared analysis showed 64.8% stones to be calcium salts, 32.3% uric acid and 2.9% magnesium ammonium phosphate. The analysis proved urolithiasis to beagreat health hazards in Sind area. Children below 10 years age were found to be suffering from bladder stones which has also been reported earlier in other studies. The upsurge in the incidence of UUT stones can be attributed to changes in dietary habits.

Cerebral Phaeohyphomycosis Complicated with Brain Abscess: A Case Report. Lirng, J.F., Tien, R.D., Osumi, A.K., Madden, J.F., Mclendon, R.P., Daniel, S. Chin. Med. J. (Tapiei) 1995;55:491-495.

The case of cerebral phaeohyphomycosis presenting as a cerebral abscess is presented. The patient was a 51 year old diabetic, hypertensive male who came in with a history of tonic clonic seizures. Physical examination and laboratory data were unremarkable. CT scan showed a right high frontoparietal junction mass. MRI of the brain demonstrated a one centirnter ring-enhancing lesion with surrounding vasogenic edema in the right high fronto- parietal gray white matter junction. A diagnosis of brain abscess versus an intra-axial tumor was made on the basis of neuroimaging. Craniotomy was performed and an encapsulated mass of one centimeter size was removed. Purulent green fluid was present in the tumour. On analysis a branching fungus thought to be Aspergillus was seen. Amphotericin B was started and 6 weeks later the patient developed headache and unsteady gait. A repeat MRI showed a lobulated mass at the operative site with surrounding vasogenic edema.

The original sample was re-analysed and a growth of X. Bantiana instead of aspergillus was obtained. 5 Flucytosine and itraconazole were administered. A second craniotomy was done to remove the recurrent lesion. A repeat examination of the mass confirmed the presence of X.bantiana which was re-confirmed on culture. The primary site of the fungal infection could not be identified. Medication was continued for 8 weeks after which the patient has remained symptom free.

The first report of X-bantiana removed from a brain abscess came in 1952. The fungus has a remarkable affinity for the nervous tissue. The portal of entiy usually remains unknown.

Anti-fungal chemotherapy with 5-flucytosine is effective as it penetrates the blood brain barrier well. Itraconazole, a third generation azole, inhibits fungal sterol synthesis, is recommended as an adjuvant chemotherapy. It is emphasized to recognise fungal brain abscess early to provide appropriate surgical intervention and prompt antifungal therapy.