

# SELECTED ABSTRACTS FROM NATIONAL MEDICAL JOURNALS

Pages with reference to book, From 196 To 197

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## **PYOGENIC MENINGITIS IN CHILDHOOD DETECTION OF ENDOTOXIN BY LIMULUS LYSATE. Shakoor, K.A. Pak. Paed. J., 1987; 11: 187 - 194.**

Twenty infants diagnosed as meningitis were subjected to the Limulus Lysate test 'at the National Institute of Child Health, JPMC, Karachi.

Limulus Lysate is a rapid and bedside diagnostic tool in detecting endotoxins to differentiate bacterial from aseptic meningitis. This substance is had by bleeding the horse shoe crabs and then drying the blood cells. The proteins from these lypholized cells form a clot when mixed with endotoxins. This test was found positive in 16 of the 20 CSF specimens examined in this study.

First drain cerebrospinal fluid from all the 20 children, included in the study, was collected under strict aseptic conditions. 0.2 ml of the CSF was 'added to the lypholised lysate and incubated for one hour at 35°C. Routine biochemical and bacteriological tests of the remaining CSF were carried out. The limulus lysate test was positive in all cases of pyogenic meningitis which were both untreated and partially treated patients. Two cases, probably having a viral etiology, gave negative results and 3 tuberculous meningitis cases had one false positive.

It has been emphasized that Limulus Lysate test is a quick and reliable method of differentiating between pyogenic and aseptic meuingitis. Call count has been a matter of controversy as the polymorphonuclear cells rise in the early stage of viral and aseptic meningitis.

## **TIMOLOL INDUCED CARDIAC ARREST AND BRONCHIAL SPASM DURING LARYNGOSCOPY. Khan, R.M. , Anwer, S.A., Khan, T.Z. Pak. Paed. J., 1987; 11 :195 - 197.**

An unusual case of Timolol eye drop induced cardiac arrest and bronchial spasm in response to laryngoscopy is presented. Timolol Maleate is a beta1 and beta2 receptor blocker and is used exclusively for reduction of intra-ocular tension as topical drops in patients with open angle glaucoma. As a topical ophthalmic solution it has been claimed to have none or minimal adverse systemic effects. A 45 days old male infant with congenital glaucoma was scheduled for trabeculectomy under general anaesthesia. Timolol eye drops 0.25% had been in use since 12 days. A physical examination and routine investigations revealed no abnormality.

Atropine 0.2 mg intramuscularly was given as premedication and induction was done with oxygen, nitrous oxide and halothane. Heart and respiratory rate remained stable till laryngoscopy was attempted when slowing of the heart rate ensured leading to cardiac arrest in a minute. Resuscitation measures were adopted with external cardiac massage, O<sub>2</sub> by positive pressure and atropine. Improved ventilation was obtained after 10 minutes.

Timolol, a new long acting beta adrenergic blocker used in chronic glaucoma can produce cumulative side effects of which evidence is gradually accumulating. In the case presented no side effects were noted clinically prior to the anaesthesia but the infant did have a sufficiently high level of beta receptor blockade as laryngoscopy causing vagal stimulation together with it lead to bronchial spasm and cardiac arrest.

It is thus advisable that, before anaesthesia Timolol should be withdrawn from paediatric patients despite nO manifest systemic effects.

## **APLASIA CUTIS CONGENITA - CASE REPORT. Khan, M.A., Yaqoob, N., Qureshi, S. Pak. Paed. J., 1987; 11: 229 - 232.**

The case of a twenty one days old baby diagnosed as aplasia cutis congemta is presented. This rare congenital disorder is due to maldevelopment of the integument in utero and the vertex is the

commonest site. It appears as an ulcer which may involve all the layers of the skin, or even extend down to the periosteum or dura.

The presented infant had a patch of alopecia at birth. He was brought to the hospital with a large infected ulcer on the scalp. On examination a crater like lesion 8 cms in diameter was noted on the vertex. This was covered with necrotic crust. A thin layer of connective tissue was present below and the underlying bone of the cranial vault was absent. No evidence of cerebral damage was found. Systemic examination was unremarkable except for hypoplasia of the toes of the left foot. Routine laboratory tests were normal. The skull Xray showed absence of the bone of the cranial vault along the circumference of the overlying ulcer.

The infection was treated with systemic antibiotics and antiseptic dressings. Skin graft was advised which would enhance protection to the brain. Artificial vault implant is not available.

**WJSKOTr-ALDRICH SYNDROME : A CASE REPORT. Nizami, S.M. Pak. Paed. J., 1987; 11 : 1 - 4.**

Wiskott-Aldrich Syndrome is a rare X-linked recessive syndrome presenting in early infancy with repeated infections, thrombocytopenia, lymphopenia and immunoglobulin deficiency. A sporadic case of this syndrome is presented.

A one month old male infant, the first born and product of a normal full term pregnancy, presented with drowsiness and respiratory depression. He had been given Immodium drops for loose motions. Next day the child developed fever with a leucocyte count of 30,000/cumm and *Klebsiella* was isolated on blood culture. Crystalline Penicillin and Gentamycin were started and later changed to Claforan when a bleeding disorder was suspected. As the platelet count fell to 50,000/cumm Claforan was replaced by Cephadrine and steroids were added. Improvement was had and the platelet count was 180,000 on the 12th day of admission. Three days later, severe respiratory infection developed and throat swab revealed a growth of *Pseudomonas*. Gentamycin was used and as the IgG level was low, Gamma-globulin was injected along with platelet transfusions. The baby was discharged from hospital on the 28th day after becoming asymptomatic and having a normal bone marrow smear.

After one week the infant was re-admitted with fever and convulsions. The CSF examination gave a diagnosis of pyogenic meningitis and Fosfomycin was injected in accordance with the sensitivity report. The baby expired on the 9th day.

The repeated infections, thrombocytopenia, bleeding tendencies and immunoglobulin deficiency in the presented case characterised it as Wiskott-Aldrich Syndrome.