

The Malaysian Society of Pathologists: 7th Annual General Meeting and Scientific Meeting

The 7th annual general meeting and scientific meeting was held at the Institute for Medical Research, Kuala Lumpur on 11 September 1982.

Abstracts of the Scientific communications follow.

RETINAL DYSPLASIA IN TWINS

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Premature Chinese twins presented at the age of 3 months with amaurosis. Unilateral enucleation of the eyes was performed for each twin based on a clinical diagnosis of retinoblastoma. Histological examination showed retinal dysplasia. The features of this condition and their significance are discussed.

FOUR CASES OF GASTRIC MUCORMYCOSIS IN EAST MALAYSIA

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4 cases of gastric mucormycosis presenting with gastric ulceration are discussed. The histological features are highlighted and a brief review of the literature is given.

GLIOMA OF THE OPTIC NERVE

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R.B. K. is an 8 year old Malay girl first seen at the University Hospital Eye Clinic for left proptosis of 2 years duration. Examination (E.U.A.) revealed a huge hard mass that was arising from the inferior orbital margin extending to the posterior wall of the eye ball. The mass measured about 3 times the size of a normal eye ball.

Histopathological examination of the tumour showed an Optic Glioma (pilocytic astrocytoma).

THE HISTOLOGICAL PATTERNS OF LIPID DEPOSITION IN LIVER BIOPSIES

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Lipid was demonstrated within hepatocytes of 82 liver biopsies using the Oil Red O stain on cryostat sections. The lipid present was graded according to severity and size of the fat globules in comparison to the nuclear size of the hepatocyte. Liver tissue obtained at autopsy of 30 sudden deaths, mainly road traffic accidents, were used as controls. Lipid was demonstrable in about 89% of biopsies. In the majority of cases it was in the form of microvesicular fat. The different patterns of lipid deposition in various disease states will be presented.

ACUTE MYELOFIBROSIS AND ACUTE MEGAKARYOCYTIC LEUKEMIA

Caroline Retnasamy & Khalid Hassan

Department of Haematology, Institute for Medical Research

Megakaryoblastic differentiation in acute leukaemia is said to be uncommon; acute myelofibrosis is even rarer. The latter condition is often associated with spillage of megakaryoblasts into the circulation. In the last one year we have seen two cases of Acute Megakaryoblastic Leukaemia, 2 of acute myelofibrosis, and one of aplastic anaemia complicated by acute myelofibrosis. The clinical and haematological features of these cases are presented and discussed.

SCANNING ELECTRON MICROSCOPE APPEARANCE OF MACROSCOPICALLY NORMAL AORTIC INTIMA OF HYPERCHOLESTEROLAEMIC MACACA FASCICULARIS MONKEYS

Annie GC Tay & K Prathap

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Scanning electron microscopy of macroscopically normal aortic intima of hypercholesterolaemic Macaca fascicularis monkeys reveal raised intimal lesions covered by a continuous layer of endothelium, cell nests with incomplete endothelial covering and microulcers. A prominent feature is the presence of monocytes

adhering to the luminal surface, frequently in relation to raised lesions. It is suggested that the raised lesions are precursors of fatty streaks and that blood monocytes have a role in the formation of subendothelial foam cells and clearance of intimal lipid.

PENICILLIN RESISTANT PNEUMOCOCCUS

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A penicillin resistant strain of **Streptococcus pneumoniae** was isolated from the throat swab of an eleven month old baby boy. Its minimum inhibitory concentration (MIC) was 2 ug/ml by tube dilution method and minimum bactericidal concentration (MBC) was 4 ug/ml for penicillin. The strain was successfully eradicated by oral erythromycin. Screening of the family contacts did not reveal any carriers of the resistant strain. This is the first report of isolation of a penicillin resistant pneumococcus from peninsular Malaysia and indicates the need to screen pneumococcal isolates for resistance towards antibiotics.

CHOLECYSTITIS PRESENTING WITH ALTERATIONS IN THE CHEMICAL COMPOSITION OF BILE

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A cholecystectomy was done for a 49 year old male complaining of right sided abdominal discomfort of three years duration. The gall bladder contained a greyish white substance of clay consistency which on cut section showed a few pigment stones.

The contents of the gall bladder were chemically analysed by standard procedures. The pH of the bile was usually high (10.65) and had a relatively high amount of solids (46%). The solids were made up of calcium salts in the form of phosphates and carbonates, 8% cholesterol and traces of bile pigments.

There was no evidence of abnormal calcium metabolism to account for precipitation of calcium salts. Liver function tests did not reveal any malfunction of the liver. The abnormally high pH could have caused the precipitation of calcium salts from solution in the gall bladder.

It is suggested that this is a case of 'limy bile' causing malfunction of the gall bladder. The various causes of this condition and its recognition are discussed as its occurrence is rather unusual.

CRITICAL EVALUATION OF THE EFFECTS OF FOUR CURVE FITTING ROUTINES ON THE MINIMAL DETECTABLE LEVEL OF HUMAN CHORIONIC GONADOTROPHIN (HCG) RADIOIMMUNOASSAY

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Human Chorionic Gonadotrophin (HCG) assays are used extensively as tumour marker for the diagnosis and monitoring of therapeutic response of molar pregnancy and **choriocarcinoma**. The reappearance of detectable HCG in serum calls for restart of cytotoxic therapy or change in chemotherapeutic regime. Knowledge of the precision, bias and detection limit in the low working range is of value in the interpretation of the HCG results. The aim of this study was to evaluate the effects of four curve fitting routines on the dose response relationship of HCG radioimmunoassay using identical counting data.

Serum from patients with molar pregnancy or choriocarcinoma, quality control sera from Wellcome External Quality Assessment Samples and pooled sera were assayed using an **anti-B subunit** of HCG double antibody coated cellulose system (DAC-CEL) of Wellcome. The counting data were analysed using four parameter logistic fit with weighed least-square procedures of Dudley, four parameter least-square iterative fit of Wilkins, manual graphic log-logit fit, manual graphic fit based on the relationship of Bound Count/Total Count versus concentration.

The result showed that four parameter logistic fit gave the lowest coefficient of variation for the low value in the DAL-CEL HCG assay. In the presence of poor duplicates of standards, this curve fitting routine gave results closest to the expected values.

FLAVOBACTERIUM MENINGOSEPTICUM – EMERGENCE OF RESISTANT MUTANTS DURING THERAPY

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Flavobacterium meningosepticum is an important cause of neonatal meningitis in this country. Chemotherapy of such infections is often difficult because of the typical resistance of these organisms to many of the antibiotics commonly used for the treatment of meningitis. This problem is compounded by the rapid emergence of resistance during therapy with antibiotics which are normally effective against Flavobacterium meningosepticum.

This paper describes five cases of neonatal meningitis due to Flavobacterium meningosepticum seen at the University Hospital, Kuala Lumpur. In these five patients, the organism became completely resistant to therapy after several days of antibiotic treatment. One strain was grown in various concentrations of rifampicin, erythromycin, vancomycin, novobiocin, chloramphenicol and cefoperazone. One-step mutational resistance was observed for rifampicin and multiple-step mutational resistance was observed for vancomycin and erythromycin. Resistant mutants were not induced by the other antibiotics.

A FAMILY WITH HEREDITARY SPHERO CYTOSIS

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Hereditary Spherocytosis is a rare condition in this country. In the last 3 years we have seen 3 families with this condition. All of the cases have been relatively mild and free from the classical complications of the disease. The clinical and haematological features of one of these families with 7 affected members are presented and discussed.

CHROMOSOMAL ABNORMALITIES IN LEUKEMIAS – CASE REPORTS AND LITERATURE REVIEW

YM Chin, SK Ten Puteri Jamillatul Noor & Khalid Hassan.

Division of Haematology, Institute for Medical Research.

Chromosome abnormalities in leukaemias

are acquired. The relationship between a chromosomal abnormality and leukaemia may either be that the chromosome change causes the leukaemia, or the leukaemia causes the chromosome change, or the same common factor which causes the leukaemia also causes the chromosomal change seen. Chromosome abnormalities seen in the Chronic Leukaemias, Preleukaemia and the Acute Leukaemias are reviewed. It is pointed out that Cytogenetic studies in leukaemias may aid the clinician in the early and correct diagnosis of the leukaemia, predicting its prognosis and assessment of its response to therapy. It is also a useful tool in the elucidation of abnormal haemopoiesis and the study of leukemogenesis. Findings in patients suffering from leukaemia referred to our Haematology Division for chromosome analysis are reported.

PLASMA EXCHANGE IN THE MANAGEMENT OF IMMUNE BASED DISORDERS: ILLUSTRATION OF ITS EFFICACY AND PROBLEMS IN A CASE

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Plasma exchange was performed using a discontinuous flow cell separator on a case of bullous pemphigus who has been unresponsive to high dose steroids and immunosuppressive therapy for many years. The patient responded favourably after the procedure, with healing of the skin lesions on low dose steroids only. The patient underwent a partial exchange only because he developed a reaction to plasma during the procedure. The benefits and dangers of this procedure are discussed.