

The Malaysian Society of Pathologists: **10th** Annual General Meeting and Scientific Meeting.

The **10th** Annual General Meeting and Scientific Meeting was held at Tanjong Bidara Beach Resort, Melaka on 24–25 August 1985.

Abstracts of the scientific communications follow:

**CHILDHOOD NEUROBLASTOMA IN THE UNIVERSITY HOSPITAL: A PATHOLOGICAL STUDY.**

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In the 15 year period between 1970 and 1984, 37 cases of histologically proven neuroblastoma were seen at the University Hospital, Kuala Lumpur. The ages of the patients ranged from 74 days to 11 years. More than 85% of cases were less than 5 years of age. There was no sex predilection. 17 were Chinese, 12 Malays and 8 Indians. About 67% of the tumours were abdominal. The next commonest location was thoracic (mediastinal).

Approximately 14% of the tumours were undifferentiated, 54% were differentiated and 30% were ganglioneuroblastomas. VMA was detected in 85% of cases for which screening was performed. At the time of biopsy, more than 80% of cases had metastatic disease. Of those with bone marrow examination, more than 60% had evidence of marrow involvement. Because of the high prevalence of advanced disease, prognosis was generally poor.

**KIMURA'S DISEASE**

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This paper describes 5 cases of Kimura's disease diagnosed in General Hospital, Kuala Lumpur. Kimura's disease is a chronic inflammatory disorder of unknown aetiology characterised by lymphoid follicles, vascular proliferation and marked eosinophilic infiltrate. The clinical presentation and pathological features are outlined. A brief review of available literature and a comparative study of cases diagnosed as angiolymphoid hyperplasia with eosinophilia in the western world are discussed.

**MEDIASTINAL GERM CELL TUMOUR AND ASSOCIATED HAEMATOLOGIC MALIGNANCY – A CASE REPORT AND DISCUSSION.**

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A 19-year old Indian man was found to have a large mediastinal mass when he was investigated for his complaint of cough. He was referred to the University Hospital in April 1984 for management. Further investigations revealed the presence of a malignant teratoma. He was treated with Einhorn regime. One month prior to his death in June 1984, after two of the four scheduled courses of treatment, his general condition deteriorated further and haematological profile showed the presence of a second malignancy.

Association between germ cell tumour of the mediastinum and hematologic malignancies is now recognised. This association will be discussed together with a review of the literature.

**AMELOBLASTOMA IN DENTIGEROUS CYSTS.**

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A rare case of ameloblastomatous lesion occurring within a dentigerous cyst is reported. The dentigerous or follicular cyst is not uncommon and is always found associated with the crown of an unerupted or embedded tooth, usually the mandibular third molar or the maxillary canine tooth. Although this is not a neoplastic entity, it may become aggressive, destroying boric and expanding the cortical plates, resulting in facial deformity. Total enucleation and curettage or marsupialization of the cyst usually effects a cure in the uncomplicated cases. It has been reported that, rarely, ameloblastomas develop from the cystic lining, or the odontogenic epithelial remnants within

the cyst capsules, but many clinicians are sceptical about this. If it is true that **ameloblastoma** could arise **within** a dentigerous cyst, management of the patient would certainly differ from the uncomplicated type. The aim of this paper is to alert the clinicians to the possibility of such an occurrence, since it would influence management.

#### TESTICULAR LYMPHOMA - A CASE REPORT

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A 49-year old Chinese man was admitted to the University Hospital with a history of neck swelling. The right testis was found to be enlarged. Biopsy of the neck mass was done, followed by an orchidectomy. **Non-Hodgkin's** lymphoma was diagnosed. The clinical and pathological findings with a brief review of the literature are discussed.

#### ACUTE APPENDICITIS: AN ANALYSIS OF THE PATHOLOGY OF 1000 CASES

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The paper is a retrospective study of the pathology of 1000 appendectomy specimens received in the Department of Pathology, General Hospital, Kuala Lumpur, where a diagnosis of acute appendicitis was made prior to surgery. An analysis of the age, race and sex incidence is made. The majority of cases were seen in the young i.e. 77.9% were from patients below 30 years of age. Acute inflammation was seen more in males than in females whereas non-inflamed appendices were seen more in females.

Acute inflammation was seen in 77.4% of cases. Of the non-inflamed appendices, 52 (5.2%) specimens showed no pathology at all. Other pathological conditions seen in the appendix are discussed.

#### EXPERIENCE IN THE USE OF FENWALL CELLTRIFUGE II BLOOD CELL SEPARATOR IN THE UNIVERSITY HOSPITAL, KUALA LUMPUR

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The **Fenwall** Celltrifuge II Blood Cell Separator was acquired by the University

Hospital in April 1982. This continuous flow cell separator is able to carry out selective collection of any blood components. Over the past 3 years, the cell separator has been used for various procedures including **plasmapheresis** (6 patients), **leucapheresis** (2 patients), **granulocyte collection** (2 cases), **plateletpheresis** (1 case) and **plasma product collection** (1 case).

Three out of the four myasthenic patients who underwent plasmapheresis responded dramatically to the procedure. The response of two patients who presented with **hyperviscosity syndrome** secondary to **IgM paraproteinemia** and multiple myeloma respectively were equally gratifying.

Significant complications occurred on two occasions, the patients involved however, recovered uneventfully.

Procedures using cell separators are costly and associated with definite risks. Therefore, it should only be used in well defined clinical settings.

#### DISTRIBUTION OF GONOCOCCAL PLASMIDS, SEROGROUPS AND AUXOTYPES IN MALAYSIA

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Two hundred strains of *Neisseria gonorrhoeae* isolated in Peninsular Malaysia were studied for **plasmid** profiles, serogroups and auxotypes. These consisted of 100 strains of penicillinase-producing *Neisseria gonorrhoeae* (PPNG) and 100 strains of non-penicillinase-producing *Neisseria gonorrhoeae* (non-PPNG).

The 100 PPNG strains were divided into 2 **plasmid** groups. All of them harboured 2 common **plasmid** species, a 4.4 Md R **plasmid** previously associated with beta-lactamase production in PPNG strains from the Far East and 1 2.6 Md multicopy **plasmid** of unknown function. In addition to these 2 plasmids, 73% of PPNG isolates also carried a large 24.5 Md conjugative **plasmid**.

In contrast, the 100 non-PPNG strains were divided into 3 **plasmid** groups. All of them possessed the 2.6 Md cryptic **plasmid** and 46% of isolates also harboured the 24.5 Md transfer **plasmid**. Besides these 2 plasmids, 1 non-PPNG isolate carried an additional 7.8 Md cryptic **plasmid**.

Serogrouping by coagglutination using the W class of major outer membrane protein antigens showed that 91.5% of all isolates

belonged to the W11 serogroup with 12 serotypes among the PPNG and 17 serotypes among the non-PPNG.

Auxotype determination discriminated 13 auxotypes among the PPNG and 11 auxotypes among the non-PPNG. Prototrophic and proline-requiring strains were the commonest. These 2 auxotypes together comprised 63% of the PPNG and 77% of the non-PPNG.

#### THE FIRST ISOLATE OF MYCOPLASMA PNEUMONIAE IN MALAYSIA

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Few clinical laboratories offer diagnostic services for *Mycoplasma pneumoniae*. This has led to an underdiagnosis of the infection especially in developing countries. Serological tests are more popular in the diagnosis of these infections and culture has been avoided by many laboratories probably because it takes too long and most bacteriologists are not familiar with the techniques which differs from the conventional bacteriological culture. This paper describes the first successful isolation of the organism in our laboratory and discusses the factors influencing its growth and the usefulness of culture in diagnosis.

#### AN EVALUATION OF A MICROHAEM-AGGLUTINATION TEST FOR THE SEROLOGICAL DIAGNOSIS OF MYCOPLASMA PNEUMONIAE INFECTIONS.

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There are various methods available for the laboratory diagnosis of *Mycoplasma pneumoniae* infections. These include the isolation of the pathogen, detection of cold agglutinins and detection of specific antibodies using complement fixation, metabolic inhibition; indirect haemagglutination and other methods.

This study is an evaluation of a commercially available microhaemagglutination test kit for the detection of specific antibodies to *M. pneumoniae*. The results obtained with the kit are compared to those obtained by the commonly used complement fixation test. The sera from patients suspected of having atypical pneumonia and from normals were tested by both methods.

The availability of a commercial kit and the ease of performance of the test may encourage more laboratories to perform a serological test for the laboratory diagnosis of *M. pneumoniae* infections.

#### C3 AND C4 LEVELS IN COLOSTRUM AND MILK FROM NORMAL MALAYSIAN MOTHERS

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The complement system is the primary humoral mediator of antigen-antibody reactions and the third and fourth components are those usually measured. Data on the levels of C3 and C4 in the colostrum and milk of normal lactating Malaysian mothers are lacking. We, therefore, measured these components in colostrum and milk of this population employing the single radial immunodiffusion technique.

Samples were taken from normal lactating mothers admitted at the Maternity Hospital, Kuala Lumpur between the first and 14th day post-partum (PP). C3 and C4 concentrations were measured from 58 and 88 samples respectively.

The C3 concentration fell steadily over a period of 2 weeks post-partum while C4 concentration appeared to increase during the second week PP after an initial fall.

#### THE VALUE OF A 50 GRAM ORAL GLUCOSE TOLERANCE TEST IN MALAYSIA

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A 100 gram or 75 gram glucose tolerance test is not well-tolerated by Malaysian women, who are physically smaller than their western counterparts. Hence, a 50 gram oral glucose tolerance test is used to detect the presence of diabetes in pregnancy. This was performed in three groups of pregnant women, (i) 34 "normals" (ii) 87 "possible diabetics" and (iii) 10 "established diabetics".

In normal pregnancy, the fasting and 2 hours postprandial plasma glucose were not significantly different in the 1st, 2nd and 3rd trimesters. 25 of 87 "possible diabetics" (28.7%) and 8 of 10 "established diabetics" had abnormal glucose tolerance.

The incidence of diabetes in Malays, Chinese and Indians were 21.1, 11.8 and 20.0 percent respectively in the test population. The well-tolerated 50 gram oral tolerance test still has value in predicting an abnormal glucose tolerance in pregnancy.

#### LEVELS OF IMMUNOGLOBULINS IN COLOSTRUM AND MILK FROM NORMAL MALAYSIAN MOTHERS

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There is virtually no information available on the distribution and quantities of antimicrobial substances in the colostrum and milk from normal lactating mothers in Malaysia. Concentrations of immunoglobulin A (IgA), immunoglobulin G (IgG) and immunoglobulin M (IgM) were measured in colostrum and milk taken from normal lactating mothers admitted at the Maternity Hospital, Kuala Lumpur between the first and 14th day postpartum (PP), using single radial immunodiffusion technique. The number of samples for IgA, IgG and IgM was 96, 63 and 65 respectively.

The level of IgA was found to decrease steadily from an initial mean concentration of  $484 \pm 174$  mg/dl for days 1-3 PP, reaching a plateau during the second week PP. A similar pattern was observed with IgG.

IgM was not detectable in all 12 samples tested during the first three days PP. Detectable IgM was seen in only 6 of 34, 3 of 14 and 1 of 5 samples measured during days 4-4, 6-7, 8-14 PP respectively. A comparison of the above findings with those reported from other countries will be discussed.

#### A STUDY ON HERPES GENITALIS INFECTION IN PENANG

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In recent years herpes infection of the genital tract has assumed major public health importance. At present there is no available data on Herpes simplex virus (HSV) type associated with this disease in Penang. This study was undertaken to determine the HSV type in patients with genital herpes infection.

Virus isolation attempts were made from lesions in 114 patients with clinical diagnosis

of herpes infection, 107 of whom had genital herpes and 7 oral herpes. Herpes simplex virus was isolated in 40 patients amongst whom 8 had HSV type 1 and 70 HSV type 2 infection. Twelve strains were not typed. Isolates from 3 cases of oral herpes yielded 2 cases of HSV type 2 and one HSV type 1. In 84 patients having clinical features of herpes lesions the virus was not isolated. The importance of these findings will be discussed.

#### ANTI-HBs LEVELS IN VACCINATED MEDICAL STAFF AT THE HOSPITAL BESAR, KUALA LUMPUR

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Quantitation of anti-HBs levels were done among the medical staff of the Blood Services Centre (BSC), Dental Department, Cardiology Department, Hemodialysis (HDU) Department and young medical doctors at the General Kuala Lumpur (GHKL) after vaccination with HEVAB Pasteur Vaccine. All HBV markers were determined using RIA kits (Abbott Lab.). Anti-HBs was quantitated using the standard provided by the WHO Central Laboratory of the Netherland Red Cross Transfusion Service.

All of 21 BSC staff, 86% of 22 Dental personnel, 92.9% of 14 HDU staff, 87.6% of Cardiology staff and 68.6% of 12 young doctors developed anti-HBs.

The average anti-HBs levels estimated at two and four months after the first vaccination were about 10mlU/ml and over 100mlU/ml respectively. 12 of the 22 BSC staff vaccinated were tested 22 months after the first vaccine. 11 out of the 12 subjects tested had an average antibody level of 834.7mlU/ml (range 15-4308).

The young doctors (all below 40 years) were vaccinated according to 2 different protocols. Protocol I consisted of three 5ug doses given at monthly intervals. Protocol II is a new regime consisting of only two 5ug vaccines given at an interval of two months. 81.8% of the young doctors in protocol I developed anti-HBs two months after the first vaccine. Among those on Protocol II only one person developed antibodies after two months and 44%, after three months. Further, one year after receiving the two vaccines, anti-HBs levels were less than 100mlU/ml.