

Abstracts of original papers and case reports of Chulalongkorn Medical Journal Vol. 18

Preliminary Study on the Levels of Complement C₃ and Immunoglobulins in Normal and Sick Children

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Levels of Complement C₃ and Immunoglobulins in 45 normal controls and 40 infants and children associated with various infectious process namely septicemia, diarrhea, pneumonia and osteomyelitis were studied. Complement C₃ levels in all infectious cases except neonates were consistently low and statistically significance ($P < 0.05$) when compared with matched normal groups. Serum IgG concentrations in all patients were also depleted. Since clinical malnutrition had been speculated in most of these patients, the findings implied that there might be correlation between nutritional deficiency and the depletion of Complement C₃ and IgG which in turn will render certain degree of susceptibility to infection in these malnourished infants and children.

(6 tables, 6 references)

The Value of Electromyography in the Diagnosis of Nerve Root Compression in Herniated Lumbar Disk

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Electromyographic studies were performed in 59 patients with herniated lumbar disk. 40 cases had been subjected to myelographic study and the final diagnosis confirmed by surgical findings and pathological examinations.

All these 40 cases had abnormal electromyogram (EMG) (100%) but only 38 cases had abnormal myelogram (95%). The types of abnormalities found in EMG were fibrillation and/or positive sharp wave (80%), polyphasic potential alone (10%) and combination of both types (10%). The percentage of these positive findings were higher than earlier reports (Crane 1968, Hoover 1970, and La Joie 1972). These difference of higher percent positive findings could be explained from the fact that all the patients in this series came to the hospital in advanced stage when the nerve roots were already compressed. In locating the level of the lesion, myelography showed higher accuracy than electromyography (90% and 77.5% respectively).

The results of this study indicated that electromyography should be adopted as screening investigation for out patient, as the test is simple, requires no preparation of the patient and devoid of any complication.

(4 tables, 6 references)

Hemolytic Disease of Neonate Caused by Rh and ABO Incompatibility : Report of a Case

Somma Sri-ngarm
Sommai Bhongvej
Juthamas Chupungartama

The hemolytic disease of the new born due to Rh incompatibility between mother and baby occurs as a rule in the 3rd pregnancy or later one. Except in case that the mother had been previously transfused. In this case the mother who had group O Rh negative received group O Rh positive blood after her delivery 2½ years ago. Therefore the Rh antibody occurred in her subsequent pregnancy in a very strong incomplete form that the red blood cells of the baby were sensitized and showed the Rh negative result. ABO incompatibility might have accompanied in this case.

(4 tables, 4 references)

Purulent Pericarditis Due to Entamoeba Histolytica

Saksri Sarakhun
Somsak Vattanapat
Sachaphan Israsena

Amoebic pericarditis occurring in a 42 year old Thai male was reported. The symptoms included fever, epigastric pain and diarrhoea followed by shortness of breath and orthopnea. The roentgenographic findings suggested pericardial effusion. Electrocardiogram showed low QRS complex with ST-T changes. The first pericardial tap yield 1000 ml. of anchovy like fluid and from the second tap, 150 ml. of frank pus containing *E. histolytica* were aspirated. No clinical improvement was gained after tapping. Liver scintigraphy was performed and a space taking lesion in the left lobe of the liver was revealed. Subsequent roentgenographic study after sodium diatrizoate injection into the lesion in the liver demonstrated communication with the pericardial sac. Sternal pericardiotomy for drainage was performed. The patient had good recovery and was discharged from the hospital 6 weeks later. A follow up examination at 1½ years afterward showed the patient in good health without any disability.

(18 references)

Conservative Management of Premature Rupture of the Membranes.

Srisomboon Auamkul
Seeruern Supapidhayakul

The results of conservative management of premature rupture of the membranes in 200 pregnant women were reported. 83.6% of the 146 cases with more than 36 weeks gestation had spontaneous labour pain and normal delivery within 24 hours after the rupture of the membranes. Those who had no labour pain after the subsequent 24 hours and had no contraindication were induced with syntocinon and had successful delivery.

In the groups whose gestation were less than 36 weeks (54 cases), 1/3 of the cases developed labour pain and delivered spontaneously within 24 hours. With conservative management most of the remaining 2/3 had their natural course within 2-3 weeks. Fever developed in most cases whose labour pain delayed for more than 48 hours and in those with pregnancy term less than 36 weeks. Antibiotics were given to all cases who had fever and cases that labour was induced or received caesarean section. The antibiotics treatment were maintained till 2-3 days after delivery. The results indicated tendency towards decreased maternal morbidity. The importance of performing only a single and thorough diagnostic examination was also stressed as a preventive measure for infection.

(4 tables, 25 references)

Exchange Transfusion in the Treatment of Leptospirosis with Acute Renal Failure and Hyperbilirubinemia

Charn Pochanugool
Visith Sitprijja
Chanyo Benyajati

Three patients with leptospirosis who developed acute renal failure and severe hyperbilirubinemia were treated with blood exchange transfusion. There was good clinical response characterized by improvement of general condition, reduction in serum bilirubin, prompt diuresis and improved renal function. It is believed that hyperbilirubinemia has a detrimental effect on renal function. Exchange transfusion should be better recognized as a method of treatment of acute renal failure associated with hyperbilirubinemia.

(12 references)

Acute Hydramnios: Two cases report

Anek Areebarg

Acute hydramnios is a rare condition. The author reported two cases, one Thai and one English who were recently seen. Both patients had typical features of acute hydramnios. They were sings and symptoms of rapid accumulation of amniotic fluid, occuring within a few days. The first patient was treated by repeated amniocentesis. She

subsequently went into premature labour and delivered an approximately normal female stillborn infant. The second was treated by artificial rupture of membranes and had an anencephalic female stillbirth. No abnormal bleeding occurred in either case.

Acute hydramnios is frequently associated with multiple pregnancy and fetal anomaly particularly oesophageal atresia and anencephaly, however, there is often no apparent cause. Its etiology is complex and remains obscure.

All cases of this condition should have abdominal X-ray taken to detect fetal anomaly and multiple pregnancy. The treatment is a matter of urgency. In the presence of fetal anomaly and favourable cervix, artificial rupture of membranes is recommended to relieve the pressure symptom and induces labour.

In the case of multiple pregnancy and apparently normal fetus, amniocentesis has been shown to be a life-saving procedure for the mother and the infant.

Fetal prognosis is extremely poor due to prematurity and serious anomaly. An attempt must be made to detect the presence of oesophageal atresia in an apparently normal infant associated with hydromnios, as the baby's survival depends on early diagnosis and prompt surgical treatment.

(16 references)

Percutaneous Transhepatic Cholangiography

Pinit Kullavanijaya
Chaliow Piyachon
Sommai Wilairatana

Percutaneous transhepatic cholangiography (PTC) was performed in 36 patients suspected of obstructive jaundice at Chulalongkorn Hospital. 35 cases were proved by surgery to be obstructive in nature. Obstruction of bile ducts were demonstrated in 28 patients out of 35 (80%). The final diagnosis of these cases were intrahepatic duct carcinoma (18 cases), carcinoma of the head of pancreas (3 cases) and common bile duct stone (1 case). The 8 patients whose PTC were negative, were subsequently proved to have common bile duct stone (6 cases), cirrhosis associated with hepatoma (1 case), and carcinoma of the neck of pancreas (1 case).

The overall positive results (80%) was good enough to be recommended as an investigation for obstructive jaundice except in case of gall stone which had very poor result (14.28%). The technique was particularly useful in carcinoma of the intrahepatic bile duct as this disease is difficult to diagnose even at laparotomy and it is also a common etiology of bile duct obstruction in Thailand.

(1 table, 26 references)

**Liver Function Tests in the Differential Diagnosis of Jaundice :
The value of analysis programme using minimal number of tests**

Sachaphan Israsena	Somma Wilairatana
Boonsong Maturosakul	Pinit Kullavanijaya
Yupha Aontuam	Chaveng Dhechakaisaya

To evaluate the benefit and limitations of minimal number of biochemical blood tests in the differential diagnosis of jaundice, 250 cases of jaundice (118 from intrahepatic diseases and 132 from extrahepatic biliary obstructions) were studied. Serum bilirubin, AP, TT, and GOT were analysed. For differentiation between hepatocellular and obstructive jaundice, bilirubin was not useful. Serum AP, TT, or GOT alone yielded accurate diagnoses in 2/3 of the cases. Combinations of AP with GOT or AP with TT were correct in 1/3 to 1/2, incorrect in 1/20, while 1/2 to 2/3 remained equivocal. Evaluation by considering AP, GOT, and TT together yielded accurate diagnoses in about 80% of cases. Minimal biochemical tests, when considered together, gave satisfactory results in the differentiation of the type of jaundice.

(9 tables, 4 figures, 28 references)

A Case of Human Schistosomiasis from A New Locality in Thailand

Saksri Sarakoon	Prasarn Jimakorn
Amnach Sriratanaban	Phrao Nivatvongs
Somma Wilairatana	

A Thai farmer from Pichit province, 200 miles north of Bangkok, who presented with splenomegaly was found to have schistosomiasis by rectal biopsy. Liver biopsy revealed schistosome ova with periportal fibrosis and pericholangitis. Hemodynamic study showed presinusoidal portal hypertension.

This case of schistosomiasis was reported because the patient had never been to the previously known endemic areas.

(7 references)

Pericarditis and Gasolene Aspiration: Report of a Case

A 15 year old Thai, working as gasolene station attendant was hospitalized because of progressive respiratory difficulty for 3 months. He gave history of few gasolene aspirations. No pericardial rub was heard but serial electrocardiograms were consistent with pericarditis. He died 18 days after admission despite of an extensive treatment. Only limited necropsy was permitted. The findings showed pneumonitis and extensive pulmonary fibrosis which was believed to be related to chronic exposure to gasolene. The parietal pericardium showed spotty hemorrhage and mild inflammatory cells infiltration.

Pneumonitis is a well known toxic effect of hydrocarbon compound ingestion or aspiration, however, no report known to the authors ever mentioned pericarditis. The findings in this case indicated possible relationship between gasoline aspiration and pericarditis.

(7 references)

The Development of Diabetes Mellitus During Pituitary Insufficiency

Srisuda Sitprijā
Sompongse Chinayon

Diabetes mellitus developed in two women of 44 and 57 years, who had been suffering from pituitary insufficiency caused by pituitary tumor and postpartum pituitary necrosis. Clinical studies gave evidence of decreased glucose tolerance, normal insulin secretion and insulin antibodies measured in the form of non-specific insulin binding. The impaired glucose tolerance may be interpreted not due to low insulin secretion or insulin antibodies or insulin antagonists which exert their function in the presence of functioning pituitary tissue but pertaining to the reduction of glucose consumption which may be derived from decreased tissue metabolism.

The fact that diabetes mellitus can manifest itself in the presence of hypopituitarism seems to contradict the importance of pituitary factors as etiological agents in this disease.

(2 tables, 8 references)

Motor Nerve Conduction Velocity in Thai Adult

Tongchan Hongladarom
Piruch Wichienkuer

The aim of the study is to obtain a control series of motor nerve conduction velocity in healthy Thai adults. 20 healthy Thai subjects, age range from 18-40 years, were tested. Due to their accessibility to the percutaneous stimulation, median, ulnar and common peroneal nerves on both sides were selected for the tests. These nerves were stimulated by a supramaximal voltage shock with frequency of once per second. The evoked muscle action potentials were recorded from m. abductor pollicis brevis (median nerve), m. abductor digiti quinti (ulnar nerve) and m. extensor digitorum brevis (common peroneal nerve). All the responses were amplified and displayed on the oscilloscope unit of a 3 channel DISA electromyographic machine.

The results can be concluded that the value of motor nerve conduction velocity in Thai adult is rather similar to that of the western countries. The proximal velocity is faster than the distal and the velocity of upper extremity is faster than that of the lower extremity.

The range of values obtained may be used as reference for further research in electromyographic field.

(5 tables, 15 references)

Herpes Simplex Encephalitis : Report of 2 cases

Angkana Indarakoses
Chare Phonprasert

Herpes simplex encephalitis is an acute fulminating necrotising encephalitis caused by herpes hominis virus. The temporal lobe and rhinencephalon are common affected sites which render focal neurological signs accordingly. Since mortality and morbidity are high, the disease should be promptly recognized.

Acute febrile illness which manifests like influenza followed by focal neurological deficit such as hemiparesis, convulsion and aphasia in association with progressive loss of consciousness, normally raises the possibility of various types of space-taking lesion. It should be kept in mind that herpes simplex encephalitis could incur a similar picture. Cerebral angiography and brain scintigraphy are both appropriate investigative measures for locating the lesion site. The definite diagnosis could be made by isolation of the herpes virus from brain tissue culture. Demonstration of virus antigen by fluorescent technique is also a useful diagnostic criteria which may be easier to establish practically.

Two cases of herpes simplex encephalitis diagnosed by fluorescent technique were reported. After treatment by operative decompression together with dexamethasone, antibiotics and cytosine arabinoside both patients recovered reasonably well.

(18 references)