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ABSTRACTS

From the Chula. Med. J., Vol. 14. Nos. 1, 2, 3

(published in Thai)

Growth Rate and Estrous Cycle of Long Evans Rats reared in Thailand

Khammani, M., Phadharath, N., and Aphichitruangdej, U., 14 (1) : 1-16

30 Long Evans rats, consisting of 10 males and 20 females from California, were subjected to study on their development and estrous cycle under local environment. The diet was prepared from local foodstuffs, modified by method originating from Diloksampan's: ad libitum ordinary tap water and cucumber (in place of distilled water and lettuce used in California). The temperature was recorded daily during the period of study. The growth rate was measured by weight gain and the estrous cycle by vaginal smear examination. The period of study was 100 days.

The growth rate of both male and female rats was compared with rats of the same age and sex reared in California. The result was comparable. The average weight gain by the male animal was 8 grams per three weeks while that of the female animal was 18 grams. The average preestrous stage was 26 hours, of estrous 28 hours, of metestrous 31 hours and of diestrous 37 hours. The total average estrous cycle was 4.74 days, as compared with 4.25 days in

animals reared in California. A parallel comparison was obtained in a similar study using albino rats reared at Siriraj Hospital on similar foodstuffs.

(4 photos, 5 tables, 2 graphs; and 7 references)

Kidney Deformity due to Large Spleen.

Khaoparisut, V., 14 (1) : 17-21.

Enlargement of the spleen may cause abnormal radiologic picture of the left kidney and its calyces due to direct external pressure. The authors studied shadows in six adults in which the spleens were enlarged from various underlying diseases. In all cases, no pertinent findings concerning renal pathology were found after careful examination both clinically and radiologically.

The kidney was elongated and the surface was irregular in three cases. All appeared elongated, flattened, and enlarged. In one case the kidney was low in position and the outer surface was angulated. It also appeared larger. In the remaining two cases, one kidney showed deformity of the renal pelvis and calyces were markedly flattened and irregular. Intra-renal mass was consi-

dered in one case because of the size and position. pyelography, nephrography and aortography were not helpful. The patient in this last case was operated upon, and only markedly enlarged spleen pressing on the kidney was found.

The author cautioned the interpretation of left kidney tumors in patients with splenic enlargement. Other investigative measures must be thoroughly carried out.

(11 photos., 7 references)

Medical Experiences at Nong Ree District, Kanchanaburi Province.

Suwanwela, C, et al Vol. 14 (1) : 23- 24

The authors described their experiences concerning medico-economic background of the population in Nong Ree district, Kanchanaburi province which lies deep in the jungle close to the Thai-Burmese border. The entire number of population was 6124. The birth rate in this community was noted to be quite high as compare to Bangkok. The average number of children was five per one family. However, the infant mortality rate was also high, being 204 death out of 719 infants born, or equal to 28%. During two week medical excursion, approximately 3000 patients or 47.5% visited the mobile medical unit. Among major diseases found were gastrointestinal disorders, respiratory tract diseases, malnutritions, anemia and ocular disorders.

Aneurysm of the Carotid Artery: A case Report.

Vatanapat, S.,

Vol. 14 (1) : 37-41

The author reported the first case of right external carotid artery aneurysm in Thailand. The patient was a 52 year old Thai man who complained of a growing mass at the right angle of mandible of three week duration with ear-ache of the same side. He had a history of hypertension for 8-9 years. The blood pressure on admission was 220/140 mm Hg. The poplital pulsation was absent bilaterally. The EKG showed left ventricular hypertrophy. An X-ray film of the chest revealed exudative infiltration of the right upper lung field. Sputum examination for acid-fast bacilli was negative. The carotid arteriogram revealed a large aneurysm of the external carotid artery, close to its origin. The aneurysm was adherent to the near-by structures. Excision of the anterior and lateral walls of the aneurysm, with ligation of the external carotid artery at its origin, was performed. The medial wall and the superior pole were left intact. Intravenous heparin was given during the operation. The postoperative course was uneventful. The cause of the aneurysm was arteriosclerosis. There was also generalized arteriosclerosis. This is the most common cause of all aneurysms in Thailand.

(4 photos., 13 references)

Subarachnoid Hemorrhage, Aneurysms and Arterio-Venous Malformations of the Brain in Thailand.

Suwanwela, C. Suwanwela, N. Hongladarom, T. and Hongsaprabhas, C.
Vol. 14 (2) : 56-72

It is known that cerebral aneurysm is uncommon in Thailand as compared to western countries and Japan. However, no definite data on incidence has ever been published. The authors analysed all cases of subarachnoid hemorrhage admitted to the Neurological and Neurosurgical units Faculty of Medicine, Chulalongkorn Hospital, during the years 1963-1968. In addition, all known cases of cerebral aneurysm and arteriovenous malformations, with or without subarachnoid hematoma, seen at this hospital during this period were included in the study. There were 94 cases of subarachnoid hemorrhage, 6 cases of known aneurysm and 5 cases of known arteriovenous malformation. Among the 94 patients with subarachnoid hemorrhage, there were 20 cases of cerebral aneurysms (21%) of which, 17 cases were berry type and 3 cases, mycotic aneurysms. Arteriovenous malformations were found 14 times (15%). Twenty-seven cases, or 29%, had subarachnoid hemorrhage secondary to intracranial hematoma and 21 of these patients were proven clinically to have hypertension. Another 13 patients had subarachnoid bleeding secondary to other underlying diseases, such as neoplasms, infarction, and parasites. All three cases of the latter had

eosinophils in the spinal fluid. In the remaining 20 cases, no apparent cause of hemorrhage was found.

Among 23 cases of berry aneurysm (17 subarachnoid hemorrhages and 6 known cases of aneurysm proven by arteriography), there were 24 aneurysms found. Thirteen aneurysms were located at the internal carotid artery, at the bifurcation of posterior communicating artery. Twenty patients had surgical intervention, 11 by common carotid artery ligation, and 9 by ligation at the neck of the aneurysms. All except two patients had satisfactory results and were without neurological symptoms 2-6 months after operation.

Arterio-venous malformations were found 19 times among 195 patients but only 14 had subarachnoid hemorrhage as presenting symptoms, equal to 15% of subarachnoid hemorrhage from all causes. Ten patients had surgical removal, all with good operative result.

The authors suggest three possibilities which may be related to the rather uncommon occurrence of aneurysm in Thailand. The notion of low incidence of arteriosclerosis among Thai people is well known. The different number of calcification of the arterial vessels in the pineal gland in Thais had been published. These factors may be related to medial defect of the cerebral arterial vessels which was considered the most plausible cause of berry aneurysm.

(4 photos; 6 tables and 42 references)

Transbuccal Pitocin for Induction and Stimulation of Labour

Virutamasen, P., and
Boonkanpol, M.,
Vol. 14 (2) : 74-79

Pitocin Citrate tablet (Parke Davis) was given for induction and stimulation of labour in 100 women. The ages of the patients varied from 20 to 41 years old. The subjects were divided into two groups, primipara and multipara. Each group was further divided into two, one for the study of the induction of labour and the other for stimulation. The dose of drug used was 100 units twice in every 30 minutes followed by 200 units twice in the second hour, with 400 units every 30 minutes thereafter until delivery. Birth within 24 hours was regarded as success.

Among 19 primipara, 17 patients had a successful delivery. The dose of Pitocin varied from 1600-5600 units or an average of 2853 units. Forty-five patients out of 48 multipara had delivery within 24 hours. The onset of labour was more rapid in this group than in the primipara group, an average of 2-3 hours. The total amount of drug used varied from 1400-4400 units, or an average of 2175 units. There was a total of 35 cases from both groups in which the drug was used for stimulation of labour. The result was a 100% success.

Two patients developed nausea and vomiting during the course of

medication. No complication in mothers or children were found in any of the other cases.

(5 Tables, 11 references)

Spontaneous Hemorrhage in the Cerebellum.

Hongsaprabhas, C.,
Vol. 14 (2) : 96-99

Spontaneous cerebellar hemorrhage is uncommon and has never been previously reported in Thailand. The author studied a case in which palliative treatment was considered successful. The patient was an 18 year old Chinese born in Thailand who developed a sudden onset of severe left-sided headache while swimming in the river. Accompanying the headache was left eye pain, photophobia, dizziness and nausea (vomiting). There was a history of chronic otitis media on the left. Physical examination showed a slightly dull patient with low grade temperature. There was a mild left facial palsy and partial deafness of left ear. Early papilledema was detected. There were definite cerebellar signs on the left. Other findings on physical examination were within normal limits. Plain skull X-ray revealed chronic mastoiditis. Pneumo-ventriculogram showed slight ventricular enlargement and air was unable to pass the aqueduct. Posterior fossa exploration revealed a hematoma located in the left cerebellar hemisphere containing about 6-8 ml of old blood. The cause

of hematoma was an angiomatous malformation of the cerebellum, supplied by posterior cerebellar artery. Two years after the operation, the patient was still alive and healthy.

(5 photos, 13 references)

Blood Transfusion in Surgical Patients :

Rajatapiti, B,
Vol. 14 (2) : 81-94

A special article covering objectives, methods and complications of blood transfusion as well as progress in laboratory hematologic procedure.

(20 references)

Epidemiological Study of Newborn Diarrhea related to Salmonella Javiana Infections in Newborn Nursery in Chulalongkorn Hospital.

Losunthorn, P.
Bhamornsathit, S.
Vol. 14 (3) : 120-132

During May-July, 1968, 46 cases of *Salmonella javiana* infection had occurred in the Newborn Nursery at Chulalongkorn Hospital. In order to control the outbreak and prevention of similar epidemics which might occur again, the authors undertook stool cultures from newborn infants with diarrhea and their respective mothers, as well as all persons related to the Wards. In addition, samples from milk, water, tea, etc. used in the nursery were cultured. The result revealed only 8 *Salmonella*

cases among 133 infants, none of which organism was *Salmonella javiana*. Other microorganisms found as causes of diarrhea were, *Shigella* 1, pathogenic *E. coli* 1, *Staphylococcus* 1 and *Pseudomonas* 1. Among 34 dairy and nursery persons, 7 has positive stool cultures, 5 for *Shigella flexneri* and one for *Salmonella meleagridis*. One mother among 10 was a *shigella* carrier. Milk specimens were contaminated by heavy growth of coliform organisms in 14.6%, tea in 41.7% and 50% of environmental swabs grew coliform organisms. No *Salmonella javiana* carrier was found. The authors concluded that the outbreak in May was most likely a contamination from outside carriers.

(6 Tables: 9 references)

Effect of Chloramphenicol on Blood and Bone Marrow ; A Study of twenty cases.

Watananukul, P.
14 (3) : 133-149.

Thirteen male and seven female with history of drug ingestion during the past six months were given Chloramphenicol therapy for various infections. There were 8 pneumonias, 4 urinary tract infections, 2 gonococcal urethritis, 2 sinusitis, 1 gastroenteritis and three psychiatric cases with generalized infections. All except two cases had, prior to chloramphenicol administration, complete blood count and bone marrow study. The drug was given 50 mg/kg/day.

Followed up marrow aspirations, blood counts were performed on every third day. Hemoglobin went down steadily in 6 cases, in two of these, transfusions had to be given. In all cases except one, there was reduction of total white blood count, 3 cases had neutropenia and in eight patients, there was eosinophilia, up to 19%. Normal peripheral blood study, with bone marrow depression was found in 4 cases. Thrombocytopenia alone was not found; it always corresponded with reduction of red cell and white cell counts. The former went down to 20,000/cu. mm. in 3 cases. Vacuolization in both cytoplasm and nucleus of erythroid and myeloid series was prominently found in all except two cases. The onset of reactions occurred during therapy was, 20% in the first week, 40% in the second week, 25% in the third week and 5% in the eighth week. There were 5% of cases which reactions occurred 2 months after therapy. The smallest total dose was 4.0 grams and the largest, 54 gms. One patient died of aplastic anemia. Onset of recovery was around 5 week and most showed complete recovery within 7th week after cessation of therapy.

(9 tables : 4 figures : 14 referen ces)

Serum Cholesterol Level After Ingestion of Diets Containing Saturated and Unsaturated Fatty Acids in Adult Thais.

Kunakasem, P.
Pecharapaisit, C.P. and
Buranasiri, K.,
Vol. 14 (3):150-154

Ten medical students were subjected to take natural diets supplemented by saturated and unsaturated fatty acids. The subjects were divided into two groups. Group 1, four eggs were added to natural diet. Large quantity of saturated fatty acids and unsaturated fats commonly used in cooking in Thailand was given to subjects in group 2. Blood samples were drawn before and two hours after break-fast and also two hours after lunch. The results showed only insignificant to slight increase in serum cholesterol level in Group 1 subjects. The level of cholesterol returned to normal in the following morning. In group 2, the results of high saturated fats ingestion showed marked but delayed rise of serum cholesterol, which became highest in the following morning. The results of high unsaturated fatty acids did not show much deviation from the results of group 1 subject.

(3 Tables, 5 references)

Chest Film Findings in Amoebic Liver Abscess.

Khaoparisut, V. Moonla-or, P.
Vol. 14 (3) : 155-157.

During the year 1963-1968, 55 proven cases of amebic liver abscess

were examined by roentgenographic study at Department of Radiology, Chulalongkorn Hospital. 29 patients or 53% showed elevation of right dome of diaphragm; 2 cases had elevation of the left dome; 23 patients or 42% showed evidence of pleuritis with minimal right pleural effusion. Pneumonitis of the right lung base was found in 12 patients (21%) and of the left base in one patient. In 15 patients or 27% the liver was visibly enlarged. Linear atelectasis of the right base was seen in 7 cases, and of the left base in two cases. Moderate to massive right pleural effusion was reported in 4 cases. In one case, there were pneumonitis, pleuritis with minimal fluid and normal sized liver; and subcutaneous abscess. Normal chest films were reported in 10 patients (18%).

(8 figures, 5 references)

Complete Rupture of The Left Main Bronchus Due to Blunt Trauma.

Jitpatima, K.

Vol. 14 (3): 158-161

The author reported complete traumatic rupture of the left main

bronchus, with complete atelectasis of the left lung in a 13 year old Thai girl. The patient fell from a car when it hit a tree. She felt marked pain and tenderness in the left chest and was dyspneic while her conscious was normal. X-ray films of the chest revealed hydropneumothorax and complete collapse of the left lung with right mediastinal shift. Inter-costal under water drainage was done but it did not improve the child's condition. Thoracotomy was performed 13 days after admission. The left main bronchus was completely disrupted, and its proximal end was blocked by soft tissue around the aorta, with adhesions. The distal end was partially collapsed and plugged by mucous material. End to end anastomosis and pleural drainage were performed. The postoperative course was uneventful. Follow-up X-ray films after the operation revealed normal appearance of the right lung.

(3 pictures, 1 drawing and 5 references)

