

ABSTRACTS OF THE CURRENT LITERATURE

The Newborn

The value of the maternal Rhesus-antibody titre. J. W. Crawford, C. Cameron and C.H.M. Walker, *Lancet*, 1 : 7443, 1966.

200 consecutive deliveries had been analysed to determine the role of antibody titration, amniocentesis and intrauterine transfusion. The antibody titres were determined by the indirect antiglobulin test (I.A.G.T.). Treatment was by selective premature delivery and where indicated by exchange transfusion. The indications for delivery and its timing were determined by consideration of the past history, the level of and the changes in the maternal antibody titre, the gestational age of the foetus and the estimated weight of the child.

The analysis of their findings led the authors to the following conclusions :—

1. The simplest and most important single investigation in Rh incompatibility is the estimation of maternal antibody-titre.

2. This may be supplemented in a number of cases (about a third) by amniocentesis as indicated by the history and titre level. In some cases amniocentesis may be repeated at intervals of two to three weeks.

3. The most valuable treatment for haemolytic disease at present is premature delivery.

4. In a small number of cases the history, titre and amniocentesis indicate that early death of the foetus is likely. Since induction of pregnancy is not applicable before thirtytwo weeks and may be especially hazardous before thirtyfour weeks if the baby is thought to weigh less than 1800 gm. (4 lb.), intrauterine transfusion is then necessary and often life-saving.

5. Intrauterine transfusion has offered a method of saving babies at a date earlier than premature induction can be used. The earlier the baby is affected, however, the less chance there is of success by this method. For the babies lost before twentyeight weeks, and even more before twenty-four weeks, there is still a need for a more effective form of treatment.

Intracranial haemorrhages and associated diseases in premature infants. E. K. Ahvenainen. *Ann. Paediat. Fenn.* 11 : 1, 1965. From *Excerpt. med. VII Pediat.* 20 : 322, 1965.

On the basis of autopsy material of premature infants in the years 1948-1956 the causal relationship between intracranial haemorrhages and associated pulmonary diseases was investigated. In three-fourths of the patients with intracranial haemorrhage associated pulmonary diseases were present. Traumatic and anoxic bleedings did not differ in this respect.

Hyaline membranes were the commonest associated finding. The incidence of anoxic intracranial haemorrhages associated with hyaline membranes increased during the period of study. However, one can not draw any conclusions about the relationship between hyaline membranes and intracranial haemorrhages on the basis of this study in spite of the fact that an increase in the relative incidence of anoxic intracranial haemorrhages occurred during the same period. It seems possible the pneumonia is often a fatal complication of intracranial haemorrhage. The incidence of massive pulmonary hemorrhage associated with intracranial haemorrhage is about the same as the incidence of massive pulmonary haemorrhage in the whole autopsy material. The classification of these combined states is not similar in all mortality statistics which may cause more apparent differences in the incidence of intracranial haemorrhages, infections and hyaline membranes than there really are.

Human Genetics

Aggressive behaviour, mental subnormality and the XYY Male. P. A. Jacobs, M. Brunton, M. M. Melville, R. P. Brittain and W. F. McClelland. *Nature* (Lond.), **208** : 1351, 1965. From *Excerpt. med. XII Hum. Genet.* **4** : 214, 1966.

A group of 197 mentally subnormal males with dangerous, violent or criminal propensities were examined. Twelve had a chromosomal abnormality, and of these 7 had 47 chromosomes and an XYY constitution, and 1 other was XXYY (the remainder had autosomal abnormalities except for

1 XY XXY mosaic). The XYY genotype appears to be particularly frequent in this group of patients. The most outstanding physical characteristic of the XYY male was his unusual height (73.1 in. compared with 67.0 in. in XY males). In fact in this group, a man over 72 in. in height had an approximately 1 in 2 chance of being XYY.

Social Pediatrics

Observations on the contemporary family. W. Watson. *Amer. J. Dis. Child.* **110** : 390, 1966. From *Excerpt. med. VII Pediat.* **20** : 390, 1966.

Particular attention is drawn to one great underlying factor of all the changes within the family, namely the change in the status of women in the society. This affects pediatrics directly in that contemporary young women with their small families will not have the same attitudes towards children and toward family care as their mothers or grandmothers. The overall effect of changes in patterns of marriage and childbearing developed at the beginning of World War II in all industrial societies seems to have the effect of at last reversing the 150-year-long decline in the size of the family. Family size reached its lowest point in the depression years of the 1930's, and there is some indication that the present generation of parents (particularly those of the middle classes) who are marrying much younger may, in fact, have slightly larger families. Moreover, the rights of women to vote and work and the changes in family size and life expectancy appears also to be changing the conjugal relationship itself. That is to say, the old idea

that the father and husband is dominant within the family is waning, and this is reflected in the emergence of what the sociologists call joint conjugal roles. These are marked by equality of duties and obligations between husband and wife within the family, and this in turn may have an effect, perhaps a considerable one, on the children.

Therapeutics

A comparison of the protective effect of methisazone and a hyperimmune antivaccinal gamma-globulin in primary smallpox vaccination carried out in the presence of contraindications. Barbara Jarozynska-Weinberger and J. Meszaros. *Lancet*, 1 : 948, 1966.

Methisazone and antivaccinal γ -globulin have been compared in their ability to moderate the severity of the local and general reactions to primary smallpox vaccination and to prevent complications in children having contraindications to vaccination. The investigation was carried out on 55 children aged 2½-9 years; in 32, contraindications to vaccination were present, including 16 patients with a history of eczema. Treatment with either agent was begun on the 4th day after vaccination, when the vesicle was beginning to develop. Methisazone was given by mouth in a dose of 100 gm. per kg. followed by 50 mg. per kg. daily for 3-6 days; the total dose ranged from 1.5 to 3.7 gm. γ -globulin with a haemagglutination inhibition titre of 320 was given intramuscularly in a single dose of 3 ml. of a 15% solution. 26 children were treated with methisazone, and 29 with γ -globulin. A control group was not included, because of the risk of vaccination in

such children in the absence of treatment.

The general reaction was within acceptable limits in both groups. The severity of the local reaction was significantly reduced in the group treated with methisazone, and the total duration of the reaction (from vaccination to the detachment of the scab) was also significantly reduced in comparison with the group treated with γ -globulin.

3 patients treated with methisazone and 7 treated with γ -globulin had mild complications. The most frequent complication was the appearance of secondary vaccinal lesions—in 1 patient treated with methisazone and 5 treated with γ -globulin. In all cases the lesions were few in number and healed quickly in the absence of further treatment. No case of eczema vaccinatum occurred. 10 of the 26 children treated with methisazone vomited.

On the basis of this short series it seems that primary smallpox vaccination can be safely done in children in whom it is contraindicated, if they are protected with methisazone or with immune γ -globulin. Methisazone has certain advantages over γ -globulin since it reduces the severity of the local lesion and is readily available in unlimited amounts in times of emergency.

AUTHORS' SUMMARY.

Rheumatic fever and rheumatic disease in school children. III. Chemoprophylaxis of relapse of rheumatic fever. T. Okamura. *J. Jap. Soc. intern. Med.* 54 : 804, 1965. From *Excerpt. med. VII Pediat.* 20 : 380, 1966.

In 37 children who experienced an attack of rheumatic fever, oral penicillin (buffered pyrimidine penicillin

or bicillin V₂) or a long-acting sulfa drug (sulfamethoxy-pyridazine) was administered for the purpose of prophylactic therapy. Only 54% of the total cases received continuous chemotherapy over a half of the observation period. Periodical bacteriological examinations revealed that the rate of positive isolation of streptococci from the throat was distinctly lower in the children treated satisfactorily. The incidence of relapse of rheumatic fever was 5.7% per year. This was about one-third of the incidence of relapse seen in the group in which prophylactic therapy was not given. In cases with valvular lesions, in which the incidence of relapse was higher than in those without valvular lesions, it was decreased to one-fifth by prophylactic chemotherapy.

Low-protein purine-free diet in treat-

ment of acute leukaemia in children : Preliminary communication. B. Halikowski, J. Armata and S. Garwicz. *Brit. med. J.* **1** : 519, 1966.

On the basis of a working hypothesis that low-protein purine-free diet may diminish the effects of enzymatic block due to a reduced supply of substrate and thus act as a factor in the maintenance or resumption of normal development of bone-marrow cells, 13 children were fed the diet and the results observed. An increased response to therapy in successive and late relapse of the disease was seen.

The use of such a diet or of some modification of it in acute leukaemia might contribute to the prolongation of the life-span of children suffering from the disease.