Paediatric Pathology Society

Proceedings of the Seventeenth Annual Meeting

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Scientific communications

Some special aspects of the perinatal mortality survey in Zeeland (Netherlands) 1962-67. H. T. Planteydt. Strecklaboratorium 'Zeeland', Noordpoortplein 2, Middelburg, Netherlands.

The survey was done in a rural area of nearly 300,000 inhabitants. In 6 years 768 cases of perinatal death were examined; 615 of these had a birthweight of 1000 g or more. The overall necropsy rate was 84% rising to more than 95% in the last years of the survey.

The survey consisted of necropsy, pathological examination of the placenta, bacteriological and serological examination, collection of all available clinical data, and discussion of every case by the work group on perinatal mortality in Zeeland. In addition, a control group of 1076 cases and a high-risk group of 1282 cases were studied.

Some special aspects of this survey were the collection of all clinical data by a midwife, the accent on bacteriological examinations on a large scale, and the multi-disciplinary assessment of every case.

Of the 615 babies with a weight of 1000 g or more, 38 died from infection. The relative frequency of infection was highest in the late neonatal deaths and in premature babies.

Five cases of generalized listeriosis were discussed in detail. In the same period 3 cases of listeriosis in living babies were diagnosed.

Child mortality in Malmö. Gorel Ostberg. Department of Pathology, Malmö General Hospital, Malmö, Sweden.

Malmö is the third largest town in Sweden and has about 258,000 inhabitants. As there is only one hospital and the necropsy frequency is high, there is a good opportunity to do epidemiological work in different fields in the Department of Pathology of the hospital.

In this investigation all childhood deaths in Malmö during the years 1957 to 1970 were reviewed. Necropsy reports were available in 96% of the cases. Death certificate diagnoses were used for the remainder.

49,760 children were born alive, of whom 521 died during the first week of life. There were 546 stillbirths. Perinatal mortality was 2.1%. Malformations were found in 19% of the stillbirths. Of the first week deaths 30% had hyaline membranes in the lungs, 10% had massive intraventricular haemorrhages, and 21% showed various types of malformations.

255 children died between the ages of 1 week and 1 year. 60% had major malformations. Of the malformations, 60% involved the heart and 25% the CNS. Abnormalities in more than one system were found in one-third of malformed children.

209 children were 1 to 14 years old at death, half of them under 4 years of age. 26% died after accidents, 25% of malignancy, including leukaemia. 19% had major malformations as the cause of death and 17% died of acute or chronic infection.

Value of polygenically determined animal defect in teratological research. C. L. Berry. Department of Morbid Anatomy, Guy's Hospital Medical School, St. Thomas's Street, London S.E.1.

The third molar tooth of the CBA strain of mice is absent in a variable percentage of animals. This 'absence' is determined polygenically and satisfied the criteria for multifactorial inheritance. In this it resembles the majority of malformations found in man, and exhibits threshold characteristics. Experimental systems permit the adjustment of this threshold, and both periods of inhibition of DNA synthesis and virus injections have been studied for their effects on the number of teeth missing. The pathogenesis of the defect has been clarified, and useful information concerning the value of such defects in the screening of potentially teratogenic agents has been considered.

Teratomas in children. A. E. Claireaux and J. W. Keeling. Department of Pathology, The Hospital for Sick Children, Great Ormond Street, London W.C.1.

A series of 107 teratomas in children has been reviewed. Most of the teratomas were sacrococcygeal. The next most common sites of origin were the ovary and the testis. Other sites included the thyroid, mediastinum, stomach, and retroperitoneal tissue. There was a preponderance of females (70%). Of the 71 patients with sacrococcygeal tumours, 57 presented in the first year of life. 51 tumours were excised completely and only 4 children subsequently developed recurrence. 15 were incompletely excised. 7 children in this group eventually showed recurrences. 3 tumours were inoperable and 2 patients died before operation.

Histological examination showed that 44 tumours were differentiated; only 2 of these children subsequently showed recurrences. 19 showed a mixture of differentiated and embryonic tissue: metastases ultimately occurred in 5 of these patients. 8 tumours were histologically malignant when first seen.