

## Scottish Paediatric Society

At the Summer Meeting held at Ninewells Hospital, Dundee on Friday 2 June 1978, the President, Dr R. A. Shanks, was in the chair.

### Scientific communications

**Testicular infiltration in acute lymphoblastic leukaemia.** O. B. Eden (introduced) and E. M. Innes. Department of Paediatric Haematology, Royal Hospital for Sick Children, Edinburgh.

Increased recognition of testicular infiltration in childhood acute lymphoblastic leukaemia coincided with realisation that even for 'good prognosis' boys' 5 years disease-free survival was at least 30% less than for girls. Of the 60 identified testicular relapses among boys entered in MRC UKALL trials I-III (1970 to December 1974) it was found that 29 occurred as isolated events during first remission. Only 7 of these boys remained disease-free for 13-43 months from testicular relapse in spite of intensive local and systemic treatment to most. Early haematological relapse was common. Therefore, prophylaxis seemed essential. To ascertain the 'at risk' group, testicular biopsies were performed before cessation of chemotherapy. Of the first 90 biopsies, 15% showed occult leukaemic infiltration. This exceeded the number with overt infiltration and implied a sanctuary for cells capable of reseeding the marrow or central nervous system. However, the intertubular spaces of many also showed considerable fibrosis and many tissue macrophages. Some antileukaemic drugs do reach this site causing considerable damage but not necessarily preventing leukaemic proliferation; the microenvironmental changes might indeed encourage such proliferation in some instances. Whether prophylactic irradiation can resolve the problem requires trial. The poor prognosis of those with overt disease and the drug-induced testicular changes should answer objections raised on the grounds of sterility being caused.

**Lomotil (diphenoxylate hydrochloride + atropine sulphate) poisoning.** J. A. Curtis (introduced) and K. M. Goel. Royal Hospital for Sick Children, Glasgow.

To be published in full in the *Archives*, 1979. 54.

**Measles virus infections in malnourished children.** J. F. B. Dossetor (introduced). Department of Child Health, Royal Hospital for Sick Children, Glasgow. Measles is a more severe infection in many

developing countries than in the United Kingdom today. Evidence suggests that the difference is due to increased host susceptibility which is itself due to the effect of malnutrition in depressing normal immune responses. In Zaria (northern Nigeria) evidence of persistent measles virus was sought in the blood and nasal secretions of 30 malnourished children who were failing to recover from measles. At the same time parameters of humoral and cellular immunity were measured and all results were compared with similar measurements in 25 well-nourished children who were recovering normally from measles. Evidence of virus was found in 40% of the malnourished children but in none of the controls. Cell-mediated immunity to measles and *Candida* antigens was also depressed in the malnourished children. Three of the malnourished children died of overwhelming measles infection 6-20 days after the rash appeared; these had low or undetectable levels of measles antibodies at the time of death. Another child with a severe infection was not malnourished on anthropometric criteria but his level of serum albumin was low.

**Diet in Scotland with particular reference to diabetic children.** J. O. Craig. Royal Hospital for Sick Children, Glasgow.

The incidence of diabetes at the Royal Hospital for Sick Children, Glasgow had been roughly parallel to the national intake of sugar from 1935 to 1960, but since then the curves had become dissociated, with the sugar intake falling and the incidence of diabetes rising. There had been no compensatory rise in the intake of other carbohydrates. Among the countries of the European Economic Community, people in the UK drink much milk, but take little fruit or green vegetables, with Scotland being particularly low in the last respect. Scotland does not differ from England in the amount of visible fat bought. The UK taste in fat leads to a low intake of polyunsaturated fat, and attention has recently been focused on the amount and quality of fat taken by diabetics. A limited carbohydrate diet (daily intake of carbohydrate in grams =  $100 + \text{age in years} \times 10$ ) means that a high proportion of calories comes from fat, although there is no absolute increase in the amount of fat taken. In considering the best diet for a diabetic child, local eating habits must be regarded as important. The diabetic child does not want to be different from his peers but subtle adjustments to his diet are possible and desirable.