Discussion

Dr Chastell of Thanet asked, 'Have you treated these children in any way whatsoever, either dietary or drug wise?' Dr Cottrall replied that the four children in group A, all of whom had evidence of continuing liver disease, had been treated with a variety of agents. Three had had phenobarbitone, three had corticosteroids, one had had both corticosteroids and Azathioprine, one had prolonged course of Cholestyramine. Dietary supplements of vitamins and medium chain triglycerides were also given. We have no clear evidence that any of these agents modified the serum alpha-1-antitrypsin concentrations, nor affected the course of the disease. Dr Peter Scheurr asked if PAS positive globules were always to be seen in the biopsies of the infants with neonatal hepatitis and whether this observation could be used for diagnosis. Dr Cottrall answered that diagnosis in our cases was based on the serum alpha-1-antitrypsin phenotype but in some liver biopsies in which PAS positive material had been looked for it had been found. Dr Marshall of London asked whether hepatitis B antigenaemia was persistent and whether PAS positive granules had been found in those patients who had pulmonary disease. Dr Cottrall replied that the post mortem lung examination in one case who had died did not show PAS positive granular material. Hepatitis B antigen had been found in three of the first five patients by either immunoelectrophoresis or complement fixation test. The sixth child was positive to hepatitis B antigen on radioimmunoassay only. In all these instances the antigenaemia had been transient. In some patients antibody has been examined for by complement fixation tests and radioimmunoassay, but none found.

Dr Glasgow of Belfast reporting on eleven patients with alpha-1-antitrypsin deficiency and liver disease seen in Toronto while working with Dr Sass-Korstak, stated that his experience had been very similar to Dr Cottrall's. Two of the eleven patients had died, 50% of the remainder were very well and 50% ill. The ill patients with more advanced liver disease had more abnormal liver function tests initially and some of the children in fact had persistent mild hyperbilirubinaemia.

General discussion on alpha-1-antitrypsin deficiency

Much of the discussion during this period centred around the difficulties of defining liver disease in infants. Dr Douglas, Glasgow, stressed the importance of trying to differentiate between parenchymal disease, duct disease, or portal tract disease. The term 'hepatitis' clearly means different things to different people. Dr Emery took the view that the word 'hepatitis' was completely outmoded except where there is knowledge of an infectious agent. Professor Zuckerman reminded the audience of the World Health Organization definition, 'Viral hepatitis is acute inflammation of the liver caused by two immunologically distinct agents referred to as virus A, which causes type A hepatitis, or infectious hepatitis, and virus B which causes serum hepatitis or hepatitis B'. This does not include inflammation of the liver caused by other known viruses such as yellow fever, cytomegalovirus, or EB virus. He took the view that hepatitis was acute inflammation of the liver and nothing else, the lesion in hepatitis being one of inflammation. Dr Emery, commenting on this stated that often one does not see the ordinary signs of hepatitis.

Dr Eddleston commented that some of the liver disease in children we were talking about was clearly caused by viral hepatitis but much of it was ill-defined, but one had to adopt definitions which were workable, for example some of the children had already developed cirrhosis, some had jaundice which was due to hepatocellular disfunction, in others cholestasis appeared to be the predominant abnormality. If one were to use such terms one could make a start to classifying these conditions and defining groups of some homogeneity with uniform response to treatment X or Y. It was certainly not good enough to talk about hepatitis without characterizing the condition further.