a dental probe was inserted beneath the edge of the round, slightly raised "plaque." A plastic screwhead cap was pried out, leaving the palate undamaged.

Comment

In both these cases the nature of the foreign body in the palate defied diagnosis by either the parents or clinicians. Although this led to considerable delay in presentation, removal was simple and the palate left unscathed. The risks of dislodgement and aspiration of the plastic screwhead cap into the tracheobronchial tree, however, rendered this a potentially serious condition. Because screwhead caps look like small sweets they are attractive to children and their widespread use in the home makes them readily accessible. Ingestion of a cap into the alimentary tract would probably pass unnoticed, but if a cap was inhaled its size is such that it could obstruct the major airways. Though such plastic screwhead caps are not mentioned specifically in reports of foreign bodies in the tracheobronchial tree and do not figure in the series of 50 cases in this hospital (G H Welch, personal communication), we think that they present a considerable risk. This could be minimised by manufacturers including a warning in the instructions issued with furniture that is to be assembled at home. In our experience the central plastic retaining pin in screwhead caps can easily become distorted and therefore fail to fix the cap securely. Use of an adhesive would achieve better fixation.


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Indications for hepatitis B immunoglobulin for neonates of HBsAg carrier mothers

It has been recommended that only babies born to mothers at high risk of transmitting hepatitis B virus—that is, whose serum is HBsAg positive, or when neither HBsAg nor anti-HBe is detectable—should receive specific anti-HBs immunoglobulin. Despite the scarcity of hepatitis B immunoglobulin in Britain questions have arisen about the necessity of providing specific immunoglobulin and, more recently, vaccine for use in babies born to anti-HBe positive mothers as well as to high risk mothers. Because of the lack of data available in Britain we decided to assess the risk of transmission in carrier mothers attending the antenatal clinic at Edgware General Hospital.

Subjects, methods, and results

Wherever possible serum samples from the mother were obtained at booking and again before delivery. Samples were also obtained from the infants at various times after birth. Children were followed up for an average of 27 months (range 7-60 months). Serum samples were tested for HBsAg, anti-HBs, HBeAg, anti-HBe, and anti-HBc by solid phase radioimmunoassays, as described. All samples positive for HBsAg were also tested for significant levels of HBeAg by radioimmunoassay and the level of HBeAg quantified by reverse passive haemagglutination (Hepatest; Wellcome Reagents, Beckenham, Kent). During the first year of our study (1978-9) the prevalence of HBsAg in mothers was one in 150, reflecting the high proportion of immigrants in our patient population. Eighteen carrier mothers and their 27 children were available for further study (table). Three mothers were carriers of HBeAg. All had high serum values of HBsAg with reverse passive haemagglutination titres in excess of 1 in 1000. One Chinese mother had three children, all of whom were HBeAg positive carriers. A second Chinese mother had two children; one was an HBeAg positive carrier and the other remained uninfected. Both had received a single dose of hepatitis B immunoglobulin more than 48 hours after birth. A Filipino mother had two children, one of whom had evidence of past infection (anti-HBc positive) and the other had not been infected. Three mothers were carriers whose serum contained neither HBeAg nor anti-HBe. In this group a single child, aged 44 years, was found to be immune to hepatitis B virus; his 2 year old brother had not been infected. Twelve mothers were anti-HBe positive carriers. The reverse passive haemagglutination titre in serum was in excess of 1 in 1000 in three, between 1 in 100 and 1 in 1000 in four, and less than 1 in 100 in five. Three mothers had two children followed up, and the others one child each. Of these 15 children, only one had serological evidence of infection (anti-HBe positive, anti-HBs positive). The HBeAg titre of the mother was greater than 1 in 1000. The remaining 14 children had not been infected.

Comment

The results of this limited study in Britain reflect those of more extensive studies overseas, indicating that children born to anti-HBe positive mothers are not only unlikely to become infected but if they do so are unlikely to become carriers. When hepatitis B immunoglobulin is in short supply, and to avoid a dilution of effort, we believe that our results support a policy of its provision only for babies at high risk. As in other studies, most of our HBeAg positive patients attending the antenatal clinic were women born outside north west Europe. In our study only two women (one British) were white. Of the remainder, 10 were Asian, four African, and two came from Latin America. All these would have been considered for hepatitis screening anyway, since they came from countries where hepatitis is highly endemic. Nevertheless, we think that limited studies of a similar nature should be undertaken elsewhere in Britain, if only to confirm the low prevalence of transmission of hepatitis B to neonates among British born white women and to disclose any local variations, such as the four out of 22 children born to anti-HBe positive white carrier mothers in Northern Ireland who showed markers of infection with hepatitis B virus.


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