

LUCINA

In young infants the vertebral arteries may be compressed between the occiput and the first cervical vertebra on neck extension. Pathologists in Sydney, Australia (Pediatrics 1999;103:460–8) examined the necks of 20 infants at necropsy. Nine had a diagnosis of sudden infant death syndrome and 11 had died of other causes. Five were examined with the neck extended; both SIDS infants and one of three non-SIDS showed bilateral vertebral compression. Nine were examined with the head rotated to the right; left vertebral artery compression was seen in two of four SIDS infants and one of five non-SIDS. No vertebral artery compression was seen when the head and neck were in the neutral position. What this means as regards the cause of SIDS is a matter for speculation but the authors make the obvious point that neck extension is associated with the prone position.

Is obsessive compulsive disorder (OCD) like attention deficit hyperactivity disorder in that it is diagnosed and treated much more readily in the USA than in the UK? It has been estimated that about one in 200 young Americans have OCD and about half of them start in childhood. A multicentre trial involving 187 children and adolescents (*Journal of the American Medical Association* 1998;280:1752–6) showed the selective serotonin reuptake inhibitor, sertraline, to be superior to placebo. Clomipramine, fluvoxamine, and possibly fluoxetine are also effective and it is claimed that individual children may respond better to any one of these drugs (editorial; *Ibid*: 1785). The problem is said to be much underdiagnosed and paediatricians are enjoined to look out for children with senseless and repetitive thoughts and behaviours, particularly concerned with grooming, contamination, or danger.

In Louisiana, coronary fatty streaks were found at necropsy in 50%, and fibrous plaques in 8%, of children aged 2–15 who died suddenly, usually from trauma (New England Journal of Medicine 1998;338:1650–6). Many of the children and young adults had taken part in a long term cohort study (the Bogalusa Heart Study) and had had coronary risk factor data collected. Smoking, increased body mass index, raised blood pressure, and raised serum lipids all correlated with the prevalence and extent of coronary lesions. An editorialist points out that screening for, and treatment of, risk factors in children could do more harm than good but there seems to be no argument against educating all young people about healthy lifestyles and risk factor avoidance.

Mebendazole given routinely in pregnancy could provide significant improvements in the health of women in areas where hookworm is endemic. The drug is teratogenic in rats and mice but a non-randomised study in Sri Lanka (*Lancet* 1999;353:1145–9) has shown no significant teratogenicity in women. It did, however, improve rates of stillbirth, perinatal mortality, and low birth weight. It should be avoided in the first trimester.

Paediatric surgeons in Korea (Journal of Pediatric Surgery 1999;34:381–6) have described seven infants aged 3–55 days with a distinct picture of staphylococcal enteritis. The clinical features were diarrhoea, vomiting, and abdominal distension, and two were jaundiced. At laparotomy the characteristic feature was the presence of multiple linear transverse ulcers in small

bowel with small perforations. In six infants the lesions were spread throughout the small intestine and they extended into the transverse colon in one of these. One infant had lesions confined to the proximal jejunum. Two survived, one after resection of the affected jejunum and one treated postoperatively with vancomycin. Methicillin resistant Staphylococcus aureus was isolated from the peritoneal fluid of six infants. All had received broad spectrum antibiotics before operation.

Workers at Johns Hopkins Hospital, Baltimore offer hope of effective prophylaxis against peanut allergy (*Nature Medicine* 1999;5:387–91). Using a murine model they were able to protect against anaphylaxis by giving an oral vaccine made of nanoparticles containing DNA from a peanut allergen gene and chitosan, a polysaccharide, which acts as a vector for the DNA and protects it from digestion. The mice given this preparation produced secretory IgA and serum IgG2a antibodies, rather than IgE, against the peanut allergen. Commentators (*Ibid*: 380–1) point out that it is not known what the effect of this preparation would be on recipients who are already sensitised to the allergen, as would usually be the case in clinical peanut allergy, and suggest that there may be a long road to tread between mouse and child.

Rotavirus diarrhoea is responsible for nearly a million child deaths worldwide each year. Now work in Bangladesh (Pediatric Infectious Disease Journal 1998;17:1149–54) has shown that immunoglobulin prepared from the colostrum of immunised cows, when given to children with acute rotavirus diarrhoea, significantly reduces the duration of symptoms and results in accelerated clearance of the virus from the stools.

In Oregon, there has been a 13-fold increase in group B meningococcal infection in adolescents in the past few years (*Journal of the American Medical Association* 1999;281:1493–7). The increase has, in the main, been caused by a specific strain and clone (enzyme type 5 (ET-5), clone 301). Work in Chile (*Ibid*: 1520–7; see also editorial, 1541–3) using group B meningococcal outer membrane protein vaccines has suggested that such vaccines may be effective in young children but only when prepared from the specific meningococcal strain causing an epidemic. Work on multivalent outer membrane protein vaccines and on polysaccharide–protein conjugate vaccines is continuing.

Data from nearly 123 000 births in Dallas, Texas have clarified the relation between fetal growth and neonatal morbidity and mortality (New England Journal of Medicine 1999;340:1234–8). Using centile charts derived from this population, neonatal mortality was shown to increase rapidly at birth weights at or below the third centile for gestational age in term babies. (Neonatal mortality 0.03%, 0.04%, 0.05%, and 0.3% at 26–75th, 11–25th, 4–10th, and 3rd centile or below, respectively.) Signs of birth asphyxia, first day seizures, and neonatal sepsis were all significantly more common in infants at or below the third centile. For preterm infants it was not possible to define a line in the centile charts below which morbidity or mortality increased, but neonatal mortality and the incidence of respiratory distress increased gradually with decreasing weight for gestational age, and severe intraventricular haemorrhage doubled in incidence below the third centile.