

Highlights from this issue

Ben Stenson, *Deputy Editor*

TREATMENT THRESHOLDS FOR POST-HAEMORRHAGIC VENTRICULAR DILATATION

Two articles relate to thresholds for intervention in cases of intraventricular haemorrhage complicated by post-haemorrhagic ventricular dilatation. In a study of 17 infants Klebermass-Schrehof and colleagues measured flash visual evoked potentials (fVEP's) and amplitude integrated encephalography (aEEG) weekly and then twice weekly when the ventricular index reached the 97th centile of Levene. In all cases fVEP latency increased and in most cases aEEG became suppressed with increasing dilatation. The changes were observed before clinical signs of raised intracranial pressure were present and before the ventricular index reached the 97th centile plus 4 mm. The authors suggest that functional measures should be included in the clinical management because anatomic measures of dilatation alone may not provide enough information. Both measures normalised soon after therapeutic intervention. The study is discussed further in an editorial by deVries and colleagues. In their experience they had observed similar alterations if fVEP but not in aEEG. More data in this area will be very helpful. The Early v Late Ventricular Intervention Study (ELVIS) is randomising patients whose ventricular index reaches the 97th centile of Levene to earlier or later treatment. Follow up results from the Drainage Irrigation and Fibrinolytic Treatment (DRIFT) trial showed reduced cognitive impairment with intervention. Further research will be required to determine the optimal approach but evidence in favour of

intervention is increasing. *See pages F291 and F284*

INTESTINAL MICROBIOTA

New molecular techniques for identifying and quantifying the organisms that make up the intestinal microbiota provide vast numbers of observations and give rise to hypotheses linking therapeutic interventions to alterations in flora and to disease states at the time and throughout life. There are four articles on the subject this month—two original research articles and two articles that review current knowledge. The original articles describe the organisms identified in stool samples from series of preterm infants cared for in single institutions. The organisms differ from those observed in term infants, vary markedly between infants and over time, and are influenced by antibiotic and antifungal treatment. An association is identified between the presence of sphingomonas species and NEC that has not previously been reported. Further studies are required to understand the observations more fully and translate any therapeutic possibilities into clinical interventions. *See pages F298, F334, F286, F362*

NEONATAL SCREENING FOR CRITICAL CARDIOVASCULAR ANOMALIES USING PULSE OXIMETRY

Prudhoe and colleagues report the use of pulse oximetry screening to detect cardiac anomalies in around 32 000 babies over a 10 year period. Results from screening more than 250 000 infants have now been published. The authors stress that the number of infants identified with individual anomalies in published reports

remains relatively small and that the ability to detect some critical lesions such as coarctation of the aorta and tetralogy of Fallot is limited. Even some infants with transposition of the great arteries can have remarkably normal saturations initially. The corresponding author of this paper at the time of acceptance was Sam Richmond. Sam has since died and we will greatly miss his thoughtful and provocative contributions to F and N and to the wider world of neonatology. *See page F346*

COMPARISON OF MRI WITH NEUROPATHOLOGY IN INFANTS WHO DIED AFTER PERINATAL ASPHYXIA

In this report by Alderslieden and colleagues, 23 infants who died with neonatal encephalopathy and who had both ante-mortem MRI and post-mortem neuropathological examination are described. When the investigations were compared, MRI scan was found to have demonstrated injury to the thalami, basal ganglia, posterior limb of the internal capsule, cerebral cortex and cerebellum reliably. Injury to the brain stem, hippocampus and cerebral white matter were often underestimated by MRI. *See page F304*

TREATMENT FOR RETINOPATHY OF PREMATURITY

As more infants are treated with injections of anti-VEGF agents for their retinopathy of prematurity, information about the safety of the drugs used will emerge if people report their observations. In this report of 13 infants from India, ocular and systemic adverse events were identified in five infants. *See page F327*