EDITORIAL

SCREENING FOR RETINOPATHY OF PREMATURITY

Improved survival rates of premature infants have led to an increased incidence of retinopathy of prematurity (ROP). Severe disease is seen predominantly in infants weighing less than 1000 gms at birth and it is the improvement in survival in this group in particular which is responsible for the increase in blindness caused by this disorder.[1] Until recently there had been no convincing evidence that treatment could affect the progression of the acute disease, but the demonstration that cryotherapy of the peripheral retina in stage 3 disease can significantly reduce the chances of an unfavourable outcome[2,3,4] means that it is important to screen all infants at high risk of developing 'threshold disease' (Stage 3 plus disease involving 5 contiguous or 8 cumulative clock hours in Zone 1 or 2 of the fundus). But which infants should be screened and when? This question can only be answered if the time course of retinal vascularisation in the preterm infant and the natural history of ROP is known.

The prospective study of Fielder *et al.* reported in this issue sheds some light on the natural history of ROP and allows a rational screening protocol to be developed. The acute retinal changes develop over a relatively narrow time interval and both onset and rate of progression are related to post-conceptual rather than post-natal age. ROP is rarely seen before 31 weeks post-conceptual age and most infants who develop retinopathy requiring treatment will have onset of their disease before 36 weeks, although 'threshold disease' will take longer to develop. In the study of Fielder *et al.* no infant of >1500 gms birth weight or >34 weeks gestational age developed stage 3 ROP. Screening can therefore be confined to infants weighing less than 1500 gms at birth and the fundus examination(s) need to be carried out between 32 and 36 weeks post-conceptual age. Smaller more premature infants will need to be examined on more than one occasion.

A working party from the British Association for Perinatal Medicine and the College of Ophthalmologists have drawn up useful guidelines for screening for ROP[5]. It is essential that all neonatal units develop a clear policy for screening of high risk neonates for ROP by an experienced ophthalmologist.

REFERENCES

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