Retcam shuttle images of developing retinopathy of prematurity

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DESCRIPTION
A female baby was born at 24 weeks gestation, weighing less than 600 g. Owing to the extremely low birth weight and gestation age, she was at risk of developing sight threatening retinopathy of prematurity (ROP) and therefore eligible for screening, which subsequently demonstrated the development of severe ROP in the left eye. She was referred to a different hospital for more detailed evaluation and treatment. Severe ROP was confirmed in the left eye as well as the right eye. It was apparent on examination that the left eye exhibited stage 3 ROP in zone 1, the most posterior zone in the retina. There were also features of florid 'plus disease', with increased dilation and tortuosity of the retinal vasculature as demonstrated by figure 1B. The left eye also showed flat neovascularisation in a ‘sea fan’ formation (see arrows in figure 1B).

The right eye, figure 1A, revealed less advanced ROP and was characterised as stage 2; however, the demarcated line separating the avascularised region was bordering on zone 1. There was slight tortuosity of the vessels, which is characteristic of a pre-plus presentation.

In addition, both eyes exhibited iris vascular engorgement.

According to the guidelines produced by the Royal College of Paediatrics and Child Health, she met the criteria for laser ablation especially due to the presence of type 1 prethreshold ROP. Within 48 h, she underwent bilateral diode laser treatment, receiving more burns on the left, 3378, than on the right, 2865, eye. Figure 2 shows the avascularised regions that have been treated.

Learning points

▸ Retinopathy of prematurity (ROP) is a preventable cause of blindness; therefore, adequate screening of high-risk groups is essential.
▸ In the UK, newborns with a gestational age of less than 32 weeks or weighing less than 1501 g should be included for screening.
▸ Non-aggressive posterior ROP should ideally be treated within 48–72 h of presentation.

Figure 1  Wide angle digital (Retcam shuttle) images of the retina in the right (A) and left eye (B). Arrows demonstrating line of demarcation.

Figure 2  Postoperative images of the retina in the right (A) and left eye (B).
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REFERENCES