

PAR for the course? – or do these patients need treatment?

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Introduction

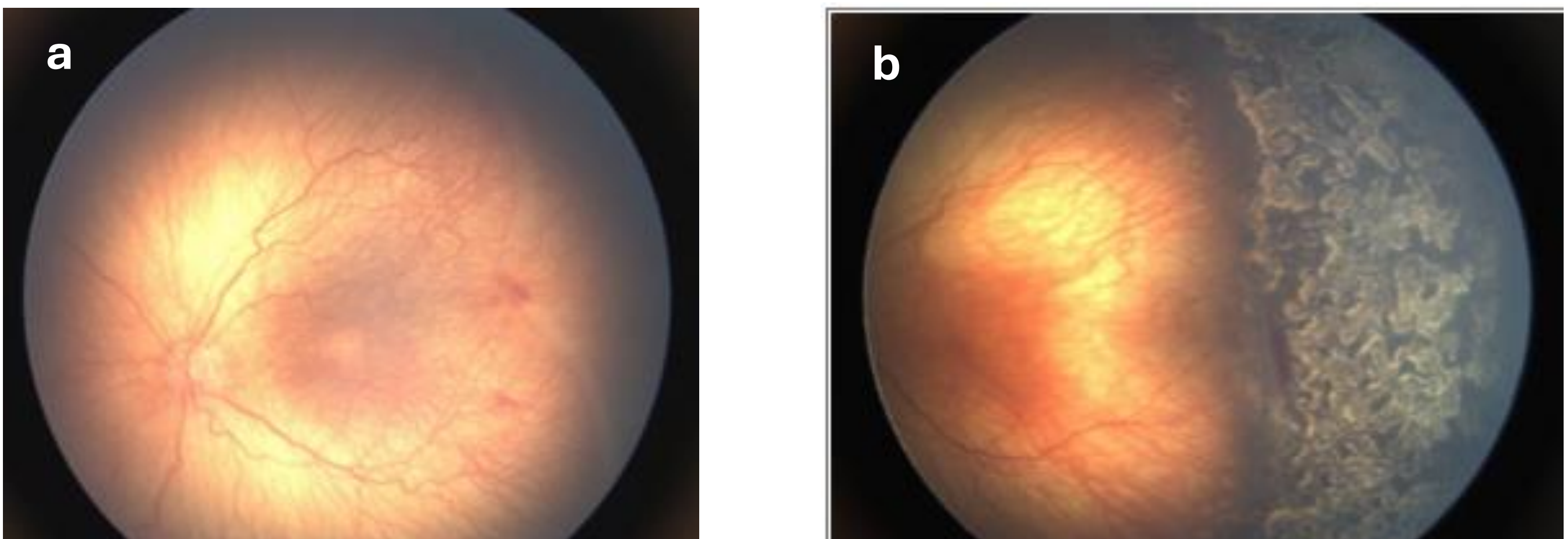
The national retinopathy of prematurity guidelines[1] were updated in 2022 shortening the entry criterion for gestational age from 31+6/40 to 30+6/40. The gestational weight remained unchanged at 1501g. However our London unit has not only had several neonates who fell outside the new criteria for age but three of them have proceeded to laser treatment. In all three laser cases the infants developed persistent avascular retina (PAR) which is a relatively recently recognised entity that deviates from the conventional criteria for treatment. This poster looks at those cases at an east London unit that has returned to the 2008 guideline criteria following an alert to the guidelines (issued in 2024 by the RCPCH) and the possible indications for retinal laser treatment.

Method

A retrospective casenote review of three babies from a neonatal unit in east London who were examined under the 2008 national ROP screening guidelines. All developed PAR not meeting the conventional ROP criteria for laser (plus disease). All proceeded to laser.

Results

All three children were born outside the new gestational age criterion (see table 1). They all went on to have



Typical appearance of PAR pre (a) and post (b) laser

laser to the periphery for stage 1 disease in the absence of plus disease. All patients were treated in only one eye. Case 3 was on home oxygen (0.04%) at the time of laser treatment and was an unusual presentation currently being genetically examined for FEVR. Case 2 was treated as the parents could not speak English and there were concerns the patient would not be brought reliably.

Table 1: Cases

Case number	Gestational age /40	Birthweight (g)	Age at appearance of PAR/S1	Age at application of laser	Result
1	31+1	950	37+1	44+1	Regression
2	31+3	1280	36+3	40+1	Regression with haemorrhages. Haemorrhages self-resolved.
3	32+0	1330	43+1	45+1	Regression

There was resolution of ROP post laser in all three cases and clinic review continues.

Discussion

There is no consensus on the treatment of PAR, either nationally or internationally. It is difficult to predict which babies are likely to require treatment, what that treatment should be or when and whether other factors such as social status should be part of the decision making.

Conclusion

In our unit, we have returned to the 2008 entry guidelines [2] and this may have to be considered nationally in the surveillance of infants for ROP. Further trials are required to determine an optimum approach in PAR including the use of fluorescein angiography and OCT which may provide helpful guides to treatment [3].

References

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2. Royal College of Ophthalmologists. *Guideline for the screening and treatment of retinopathy of prematurity*. London: Royal College of Ophthalmologists; 2008. Available from: <https://curriculum.rcophth.ac.uk/wp-content/uploads/2014/12/2008-SCI-021-Guidelines-Retinopathy-of-Prematurity.pdf>
3. Persistent avascular retina in retinopathy of prematurity. Tan, Ting Fan et al *Graefes's Archive for Clinical and Experimental Ophthalmology* (2025) 263:2177–2190 <https://doi.org/10.1007/s00417-025-06820-x>

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