This was followed by regression of the melanoma other than a small central nodule. Over the next 4 months, the lesion regressed slowly. At 1 year after the initial presentation, it had regressed to a small melanoma ($1 \times 1 \times 1\,mm^3$) with chorioretinal scarring around (Figure 1b). FFA at this stage showed chorioretinal atrophy (window defect) with underlying choroidal vessels, with the absence of intrinsic vascularity (Figure 1f).

The patient has been followed up in the eye clinic for the last 3 years, with no recurrence of the choroidal melanoma.

Discussion

Spontaneous regression of choroidal melanomas is quite rare.[1] It has been well documented with several other tumours, including cutaneous melanomas.[2] Most tumours that undergo either partial or complete[3] spontaneous regression eventually recur.[2] Complete resolution of one melanoma with a new tumour in the same eye has also been reported.[6] In cases of cutaneous melanomas, regression is associated with depigmentation clinically and degenerative tumour cells with inflammatory cells histologically.[4]

Shields *et al*[5] have reported three cases of incomplete spontaneous regression of choroidal melanomas in more than 8000 patients, with choroidal melanoma with all of them needing further management.

The possible mechanism of regression of tumours is not certain. The possibilities include hormonal influences, immunological factors, tumour cell necrosis, and inhibition of angiogenesis.[2]

In our case, at initial presentation choroidal metastasis was considered as a differential diagnosis, but the diagnosis was changed to melanoma based on the A and B scan appearance, fundus fluorescein angiography, and the absence of a systemic primary. Inflammatory aetiology was less likely as there was no vitreous activity, with the absence of any signs of inflammation in the contralateral eye. Choroidal excavation was absent, though this may be difficult to demonstrate in small melanomas.

This case illustrates an uncommon presentation of a small choroidal melanoma where the tumour regressed on observation over a 12-month period, with no recurrence of the tumour.

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Sir,

Smouldering ROP

This letter reports an interesting variation of the abnormal vascularization, that is characteristic of the retinopathy of prematurity (ROP). A male infant of birth weight 1700 g and gestational age 34 weeks born after a normal delivery and given oxygen for a day, was screened for ROP at 37 weeks postconceptional age. On examination, the retinal vascularization stopped short at $\frac{1}{2}$ disc diameter from the nasal ora serrata and 4 disc diameters from the temporal ora serrata in both the eyes. Examination of the right eye revealed an area of preretinal haemorrhage (Figure 1a) with a new vessel in the superotemporal quadrant in zone I close to the arcade. There was questionable plus disease. Examination of the left eye showed mild plus disease with few small superficial haemorrhages in the

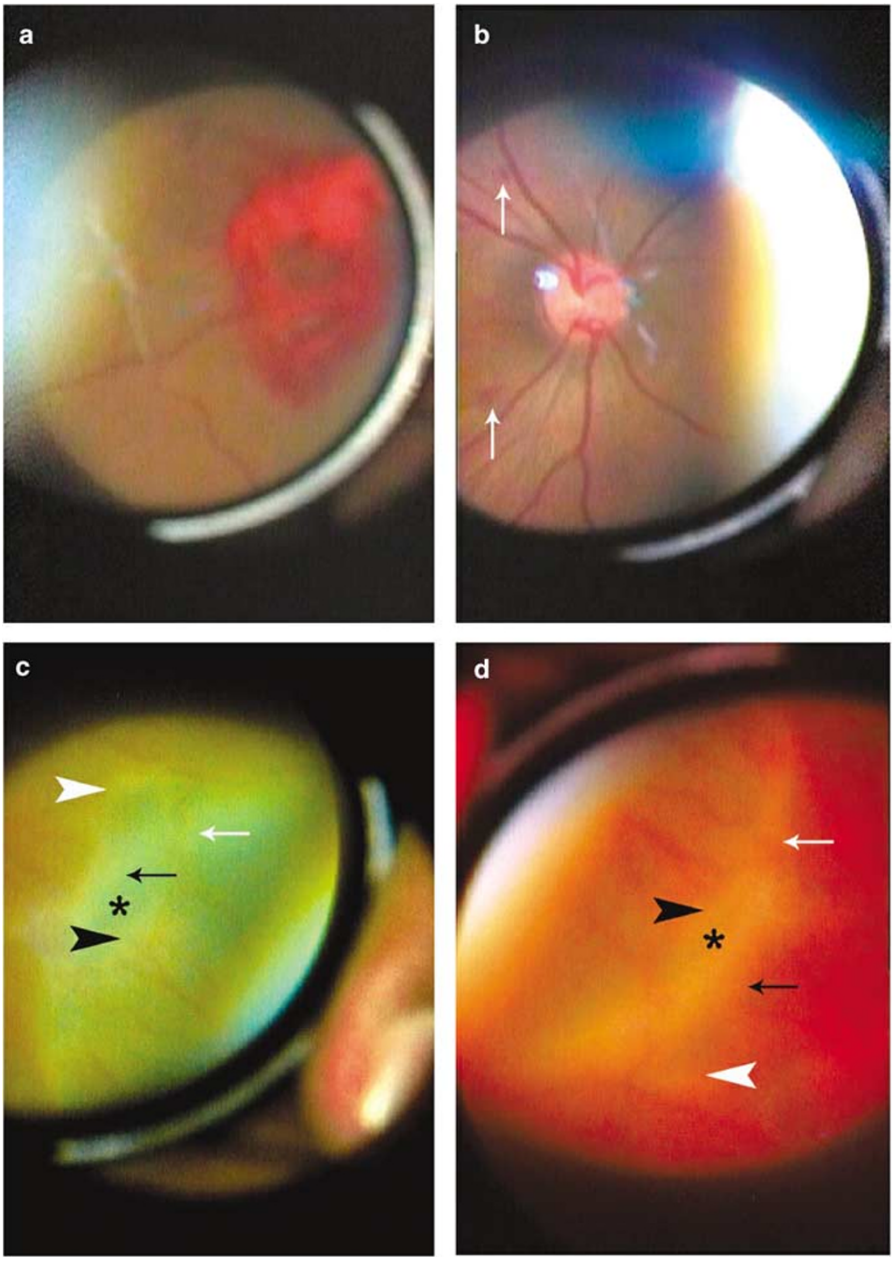

Figure 1 (a) Frozen image of the right eye (in colour) taken with the video indirect ophthalmoscope. The fundus images are as seen through the 20 D condensing lens. Preretinal haemorrhage, about 1 disc diameter in size, in the superotemporal arcade of zone I in the right eye is seen. (b) Frozen image of the left eye (in colour) taken with the video indirect ophthalmoscope. Mild plus disease in the left eye with small haemorrhages (white arrows) is seen. (c) Frozen image of the left eye (in colour) taken with the video indirect ophthalmoscope showing the superonasal quadrant. The mound seen is that of the scleral depression (black arrow). * represents the intervening pocket of avascularity. Two demarcation lines at multiple levels are obvious. The white arrowhead represents the posterior demarcation line. The black arrowhead represents the anterior demarcation line. The vascularized status of the posterior retina is clear as seen by the vessels adjacent to the white arrowhead. Multiple brush-like vessels are seen emerging from the anterior demarcation line. The white arrow represents a small vessel connecting these brush-like vessels to the more posterior vessel. (d) Frozen image of the left eye (in colour) taken with the video indirect ophthalmoscope showing the inferotemporal quadrant. The white arrowhead represents the posterior demarcation line. The black arrowhead represents the anterior demarcation line. * represents the intervening pocket of avascularity. The mound seen is that of the scleral depression (black arrow). Vessels are seen to crossover from the posterior to the anterior retina over these demarcation lines. One such vessel is represented by the white arrow. The intervening pocket of avascularity is uncrossed by the retinal vessels.

peripapillary area (Figure 1b). The most striking appearance in the left eye was that of multiple small white demarcation lines at different levels in both the temporal and nasal quadrants. Small vessels were seen to connect the vessels adjacent to the posterior demarcation lines to small brush-like vessels that in turn originated from the anterior demarcation lines (Figure 1c and d). Pockets of avascularity were present between these multiple demarcation lines. The overall picture was that of persistent boderline ischaemia in areas, despite the presence of retinal vascularization. The right eye did not have any such multiple demarcation lines.

The documentation of the findings was carried out by video indirect ophthalmoscopy and frozen images due to nonavailability of the Retcam at our centre. Hence unfortunately, the anterior zone II retinal findings are not shown because of lack of clarity of the images. Fluorescein angiography was not performed, as the infant was febrile at that time. The finding of multiple demarcation lines, with pockets of avascularity in between, in a single eye is a unique finding that is entirely different from that reported in the CRYO-ROP study.[1] Medline search did not reveal any such previous published report.

Of note is the mention of a poorly developed capillary bed being present in an already vascularized retina in an article by Schulenburg *et al*,[2] on variations in the morphology of ROP in extremely low birth weight infants. This peculiar case of ROP might corroborate this finding. The intervening pockets of avasacularity, suggesting a slow ongoing process of retinal hypoxia noted in this case, could correspond to the poorly developed capillary bed being present in an already vascularized retina as noticed by Schulenberg *et al*.[2] However, the findings were seen in an infant of 34 weeks gestational age and 1700 gm birth weight and not in extremely low birth weight infants (less than 1000 g and preterm (gestational age of 24–25 weeks)), as noted by Schulenburg *et al*.[2] However, ROP has been noted to occur in infants of higher birth weights and gestational ages in India.[3–5]

The patient was observed for a period of 2 months, and the right eye preretinal haemorrhage resolved spontaneously with regression of the neovascularization, while the multiple demarcation lines and mild plus disease continued to be present in the left eye.
A case series of late retinal detachment with multiple fibrotic ridges in ROP has been presented previously (Tawansy KA *et al*., Smouldering ROP, presented at ARVO Annual Meeting, 2004). It was thought that the left eye of the infant possibly represented the early stage of those cases (Khaled Tawansy, , personal communication).

Hence, the patient underwent laser photocoagulation to the avascular retina and to the intervening pockets of avascularity in the left eye. Follow-up after a week revealed disappearance of the plus disease and avascular pockets. The infant had complete retinal vascularization and was stable when last seen at 6 months of follow-up. This stuttering type of retinal vascularization seen in this infant could well be a new variant of ROP: smouldering ROP!

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