Sir. Prolonged follow-up period following intravitreal bevacizumab injection for stage 3 + retinopathy of prematurity

Data from the Beat-ROP study indicate that bevacizumab (Avastin; Genentech Inc., South San Francisco, CA, USA) treatment results in a lower rate of retreatment compared with conventional laser treatment for Zone 1 retinopathy of prematurity (ROP).¹ However, the suppression of angiogenesis means that follow-up until vascularisation into Zone 3 can be dramatically prolonged, as it was with the case we present here.

Case report

A female, born at 22 weeks and 6 days gestational age (birth weight 535g), had initial ROP screening at 30 + 4 weeks when retinal vascularisation was only present in Zone 1 in both eyes (BE). At 33 + 3 weeks corrected gestational age (CGA), the left eye was graded as ROP stage 3 in Zone 1 with plus disease, while the right eye was graded Zone 1 stage 2 with plus disease. Both pupils dilated poorly with persistent tunica vasculosa lentis, and 0.625 mg bevacizumab was injected intravitreally bilaterally. By 2 weeks the disease had regressed bilaterally to stage 1 with pre-plus features only.

Retinal vascularisation progressed extremely slowly into Zone 2, and weekly examination had to be continued until 50 weeks CGA. The child was then reviewed 2 weekly until 58 weeks CGA when the retinal vascularisation was completed.

Comment The anti-VEGF injections proved highly effective at suppressing the ROP process, but delayed normal retinal vascularisation necessitating follow-up for 35 weeks. If this treatment becomes widely used, it will place an increased burden on ophthalmologists involved in ROP management as well as on parents who will be required to bring back infants long after discharge. The natural history of ROP progression after treatment with anti-VEGF agents is less well understood and the safe follow-up duration has yet to be defined. In contrast, following laser treatment, permanent regression can be more confidently ascertained despite incomplete vascularisation beyond the ridge.

Wu *et al*² also mentioned an average follow-up period of 8.34 months for their 23 patients who were reviewed until full retinal vascularisation was seen, thus indicating a requirement for prolonged follow-up.

We feel patients for single modality anti-VEGF treatment should be carefully selected and the likely need for prolonged follow-up taken into consideration when making management decisions.

Conflict of interest

The authors declare no conflict of interest.

References

- 1 Mintz-Hittner HA, Kennedy KA, Chuang AZ. BEAT-ROP Cooperative Group. Efficacy of intravitreal bevacizumab for stage 3+ retinopathy of prematurity. N Engl J Med 2011; 364(7): 603-615.
- 2 Wu WC, Yeh PT, Chen SN, Yang CM, Lai CC, Kuo HK. Effects and complications of bevacizumab use in patients with retinopathy of prematurity: a multicenter study in Taiwan. Ophthalmology 2011; 118(1): 176-183.

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Optic pit with macular schisis: subtle but discernible

I just read the case report on 'idiopathic macular hole' in a child in the April 2012 issue of EYE journal.¹ I was surprised to see that an open-and-shut case of optic disc pit with macular schisis has been described as 'idiopathic' in this report.² There is no full-thickness macular hole in the reported case; what is reported as a macular hole is actually a well-described outer retinal dehiscence (Figure 2 of the article).^{2,3} Even if the pits were invisible (it is clearly visible in Figure 1 at 3:00 meridian), the tell-tale schisis on OCT gives the clue to the presence of an occult optic disc dysplasia as the cause of maculopathy.⁴ Therefore, this is certainly not the first report of an 'idiopathic' macular hole in a child, as there was neither a full-thickness hole at presentation nor was the pathology idiopathic. In fact, the surgeon created an iatrogenic macular hole (Figure 3) in this patient, a possibility that we have described previously.³ However, I agree with the surgical management of the maculopathy and suspect that the tiny postoperative macular hole might have closed subsequently.

Conflict of interest

The author declares no conflict of interest.

References

- 1 Park JC, Frimpong-Ansah KN. Idiopathic macular hole in a child. Eye 2012; 26: 620-621.
- 2 Sadun AA. Optic disc pits and associated serous macular detachment. In: Ryan SJ, Schachat AP (eds). Retina 2, 4th edn. Elsevier Mosby: Philadelphia, PA; 2006. pp 1883-1889.
- 3 Shukla D, Kalliath J, Tandon M, Vijayakumar B. Vitrectomy for optic disk pit with macular schisis and outer retinal dehiscence. Retina 2012; 32: 1337-1342.