

stage 3.³ However, in the case reported here, the tractional component progressed even without the appearance of vascular activity. This finding is not unique when using intravitreal bevacizumab in vascular retinopathies. Fibrosis, 7 days after intravitreal bevacizumab, had been reported in eyes with proliferative diabetic retinopathy,⁴ as well as acute contraction of the fibrovascular membrane in ROP.⁵ Kong *et al* reported in a pathologic study that intravitreal bevacizumab in zone I, stage 2 plus ROP did not show inflammation, necrosis, or degeneration.⁶ Contraction of large fibrovascular membranes (stage 3, more than 6 h extension) may well lead to a tractional retinal detachment as shown in this case and in two cases in a series by Kusaka *et al*.^{1,5}

Antiangiogenic therapy had been proposed as a valuable resource in the treatment of advanced cases of acute phase ROP; however, we must remember that such use is off-label, and long-term ocular and systemic side effects in this population are unknown.^{2,6,7} The value of the current report is pointing out that the development of a tractional retinal detachment is a potential complication of such therapy. Postsurgical evolution of these cases differs from the cases treated only with photocoagulation.

References

- 1 Kusaka S, Shima C, Wada K, Arahori H, Shimojo H, Sato T *et al*. Efficacy of intravitreal injection of bevacizumab for severe retinopathy of prematurity: a pilot study. *Br J Ophthalmol* 2008; **92**: 1450–1455.
- 2 Lalwani GA, Berrocal AM, Murray TG, Buch M, Cardone S, Hess D *et al*. Off-label use of intravitreal bevacizumab (Avastin) for salvage treatment in progressive threshold retinopathy of prematurity. *Retina* 2008; **28**(Suppl 3): S13–S18.
- 3 Coats DK, Miller AM, Brady McCreery KM, Holz ER, Paysee EA. Involution of threshold retinopathy of prematurity after diode laser photocoagulation. *Ophthalmology* 2004; **11**: 1894–1898.
- 4 Ishikawa K, Honda S, Tsukahara Y, Negi A. Preferable use of intravitreal bevacizumab as a pretreatment of vitrectomy for severe proliferative diabetic retinopathy. *Eye* 2009; **23**: 108–111.
- 5 Honda S, Hirabayashi H, Tsukahara Y, Negi A. Acute contraction of the proliferative membrane after an intravitreal injection of bevacizumab for advanced retinopathy of prematurity. *Graefes Arch Clin Exp Ophthalmol* 2008; **246**: 1061–1063.
- 6 Kong L, Mintz-Hittner HA, Penland RL, Kretzer FL, Chévez-Barrios P. Intravitreal bevacizumab as anti-vascular endothelial growth factor therapy for retinopathy of prematurity: a morphologic study. *Arch Ophthalmol* 2008; **126**: 1161–1163.
- 7 Mintz-Hittner HA, Kuffel Jr RR. Intravitreal injection of bevacizumab (avastin) for treatment of stage 3 retinopathy of prematurity in zone I or posterior zone II. *Retina* 2008; **28**: 831–838.

LC Zepeda-Romero¹, JA Liera-García¹, JA Gutiérrez-Padilla², CI Valtierra-Santiago¹ and LJ Cardenas-Lamas¹

¹Clínica de Oftalmología de alta especialidad, Hospital Civil De Guadalajara, Centro Universitario de Ciencias de la Salud, Universidad de Guadalajara, Mexico

²Unidad de Cuidados Intensivos Neonatos Externos, Hospital Civil De Guadalajara, Centro Universitario de Ciencias de la Salud, Universidad de Guadalajara, Mexico
E-mail: drconsuelo@yahoo.com

The authors do not have any commercial or proprietary interest in the device mentioned in the paper

Eye (2010) **24**, 931–933; doi:10.1038/eye.2009.156; published online 26 June 2009

Sir, Intravitreal bevacizumab for choroidal neovascularization associated with a retinochoroidal coloboma

Choroidal neovascularization (CNV) secondary to colobomas are rare and have been treated with laser photocoagulation, photodynamic therapy (PDT), or merely observed.^{1–4} To the best of our knowledge, this is the first report of treatment of CNV secondary to a coloboma with intravitreal anti-vascular endothelial growth factor therapy.

Case report

A 36-year-old man presented with reduced vision in the right eye of 1-month duration. The left eye had microphthalmos. His best-corrected visual acuity (BCVA) was 6/36 OD. Clinical evaluation of the right eye revealed an inferior retinochoroidal coloboma, extending up to the inferior disc margin and macula. Active subfoveal CNV with submacular haemorrhage was noted (Figure 1a), which was further evidenced by fluorescein angiography (FA) (Figure 1b) and optical coherence tomography (OCT) (Figure 1c). The patient opted for and was administered 1.25 mg of intravitreal bevacizumab (Avastin, Genentech, San Francisco, CA, USA).

One month later, the patient presented with an improved BCVA of 6/24 OD. Fundus examination, FA, and OCT revealed partially regressed CNV, and the patient was re-treated by injecting intravitreal bevacizumab in the right eye. At the final review, a year later, his BCVA was 6/9 OD and the CNV was noted to have completely regressed clinically, angiographically, and tomographically (Figures 1d–f).

Comment

CNV, a rare complication, usually develops at the junction between the normal retina and the coloboma, as also observed in our case.¹ Bruch's membrane disruption and retinal pigment epithelium displacement at the margin of the coloboma allow migration of choroidal neovascular tissue into the subretinal space at this site.¹ The paucity of reports coupled with the age at presentation varying from the first to the seventh decade has led to the specific trigger for neovascularization remaining unestablished.¹

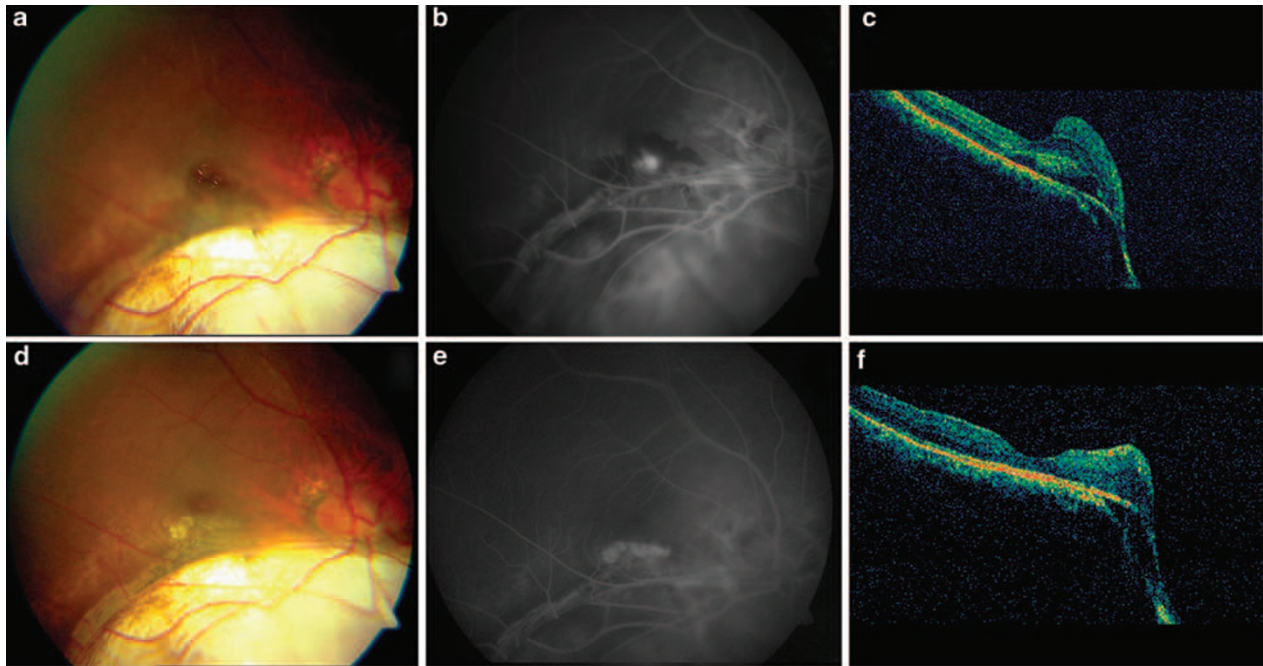


Figure 1 (a) Fundus photograph of the patient showing an inferior retinochoroidal coloboma with an active choroidal neovascular membrane (CNV); (b) late-phase angiogram showing the leak of the CNV surrounded by blocked fluorescence of the subretinal haemorrhage; and (c) vertical optical coherence tomogram (OCT) through the macula and coloboma showing the submacular neovascular tissue. (d) A year later, after two consecutive monthly injections of intravitreal bevacizumab, the fundus picture shows regression of the CNV, with (e) staining evident on the angiogram and (f) complete resolution of the lesion evident on OCT.

Of the five eyes treated with laser photocoagulation, two showed improvement in vision, with the rest remaining at the same level.¹ PDT improved the vision in a child.⁴ Only one of the four conservatively managed cases reported stabilization of vision.^{1,3} Bevacizumab has been used off-label, as intravitreal therapy for CNV, successfully.⁵ We report on the regression of CNV associated with a retinochoroidal coloboma in a uni-ocular patient, who received two injections of intravitreal bevacizumab and showed significant visual improvement over a year.

Conflict of interest

The authors declare no conflict of interest.

References

- 1 Spitzer M, Grisanti S, Bartz-Schmidt KU, Gelisken F. Choroidal neovascularization in retinochoroidal coloboma: thermal laser treatment achieves long-term stabilization of visual acuity. *Eye* 2006; **20**(8): 969–972.
- 2 Steahly LP. Laser treatment of a subretinal neovascular membrane associated with retinochoroidal coloboma. *Retina* 1986; **6**(3): 154–156.
- 3 Rouland JF, Constantinides G. Retinochoroidal coloboma and subretinal neovascularization. *Ann Ophthalmol* 1991; **23**(2): 61–62.
- 4 von Eicken J, Höh H, Rehfeldt K. Photodynamic therapy for choroidal neovascularisation due to choroidal coloboma in a 5 ½ -year-old child. *Klin Monstabl Augenheilkd* 2007; **224**(2): 140–145.

- 5 Chang LK, Spaide RF, Brue C, Freund KB, Klancnik Jr JM, Slakter JS. Bevacizumab treatment for subfoveal choroidal neovascularization from causes other than age-related macular degeneration. *Arch Ophthalmol* 2008; **126**(7): 941–945.

A Rajendran, SR Gupta, S Brahadeesh and K Ramasamy

Retina-Vitreous Service, Aravind Eye Hospital and Postgraduate Institute of Ophthalmology, Madurai, Tamil Nadu, India
E-mail: anandrn@gmail.com

Eye (2010) **24**, 933–934; doi:10.1038/eye.2009.221; published online 28 August 2009

**Sir,
White dots in the eye fundus revealing Hodgkin’s lymphoma**

Hodgkin’s lymphoma (HL) is a malignant growth of cells in the lymph system whose clinical manifestations rarely have ocular involvement.^{1–3} Posterior uveitis manifested as white dots in the fundus is uncommon in patients with HL. These are more unusual if presented isolated and as a first sign of the lymphoma without any other systemic finding.⁴ We report a case of white dots in the fundus as first clinical manifestation that allowed revelation of HL.