

including corneal laceration, scleral/corneal perforations, blunt orbital trauma, or even enucleation of the globe.^{1–6} One may interpret the trauma and its cause more readily when the presentation is manifest, but sometimes, it can be quite difficult as in our case. Hardly visible perforations, patient's denial of the condition, and a long time interval between the perforation and admission to the doctor easily lead to misdiagnosis. Ophthalmologists must always keep the self-inflicted ocular mutilation in their mind when dealing with mentally disordered patients.

References

- 1 Tapper CM, Bland RC, Danyluk L. Self inflicted eye injuries and self inflicted blindness. *J Nervous Mental Dis* 1979; **167**: 311–314.
- 2 Mac Lean G, Robertson BM. Self enucleation and psychosis. *Arch Gen Psychiatry* 1976; **33**: 242.
- 3 Kenndy BL, Feldman TB. Self-inflicted eye injuries: case presentations and a literature review. *Hosp Community Psychiatry* 1994; **45**(5): 470–474.
- 4 Yang HK, Brown GC, Magargal LE. Self inflicted ocular mutilation. *Am J Ophthalmol* 1981; **91**: 658–663.
- 5 Stannard K, Leonard T, Holder G, Shilling J. Oedipism reviewed: a case of bilateral ocular self mutilation. *Br J Ophthalmol* 1984; **68**: 276–280.
- 6 Lim M, Kent D, Clark D. An unusual case of ocular self-injury. *Eye* 2001; **15** (Part 5): 660–661.

A Sengun, MS Saricaoğlu, S Ozbek and A Karakurt

3rd Eye Clinic, Ankara Numune Training and Research Hospital, Ankara, Turkey

Correspondence: MS Saricaoğlu
Ivedik Caddesi Talas apt. No. 77/17
Yenimahalle, Ankara, Turkey
Tel: +90 312 4264 711
Fax: +90 312 4264 712
E-mail: msinarsica@yahoo.com

Sir,

Exudative retinal detachment following central retinal vein occlusion

Eye (2004) **18**, 224–226. doi:10.1038/sj.eye.6700602

Retinal vein occlusion can have a deleterious effect on vision, especially if ischaemic. Its complications include macular oedema, neovascularisation of iris and retina, neovascular glaucoma, and vitreous haemorrhage. We report two young patients who developed exudative retinal detachment following central retinal vein

occlusion (CRVO). In both cases, the CRVO was ischaemic and led to severe visual loss.

Case reports

Case 1 A 39-year-old male presented elsewhere with sudden loss of vision in the right eye and was diagnosed with CRVO. Visual acuity was hand movements, there was an afferent pupillary defect, and marked retinal haemorrhages. Investigations revealed undiagnosed hypertension and gross obesity. After 3 months, the patient was referred to us with exudative retinal detachment in the right eye.

On examination, visual acuity was right eye hand movements and left eye 6/4. The right eye showed rubeosis iridis, relative afferent pupillary defect, intraocular pressure of 8 mmHg, and total retinal detachment associated with extensive retinal haemorrhages and exudation (Figure 1, left). No retinal breaks were identified. Examination of the left eye was unremarkable. Fluorescein angiography of the right eye revealed capillary nonperfusion, secondary telangiectasis, and staining of large retinal veins (Figure 1, right). There was also evidence of vascular leakage. The patient underwent multiple sessions of panretinal photocoagulation to the right eye which resulted in absorption of the subretinal fluid and exudation over 8 months and regression of the rubeosis iridis. However, visual acuity remained hand movements at 2 years of follow-up.

Case 2 A 29-year-old pilot presented with a 6-week history of blurred vision in the left eye. Visual acuity was right eye 6/5 and left eye 6/9. Examination of the left eye showed CRVO. Fluorescein angiography showed no ischaemia or macular oedema. Investigations revealed borderline raised protein C activity. The patient returned 1 week later with further reduction in the vision of the left eye to hand movements. There was an afferent pupillary defect and a marked increase in the number of retinal haemorrhages. Repeat fluorescein angiography showed capillary nonperfusion. The patient underwent panretinal photocoagulation and was started on oral steroids (prednisolone 60 mg/day). The steroids were tapered and stopped over a period of 7 weeks. The visual acuity remained hand movements. At 8 months from presentation, the patient developed rubeosis iridis and an exudative retinal detachment (Figure 2, left). Fluorescein angiography demonstrated capillary nonperfusion, secondary telangiectasis, and staining of the large retinal veins (Figure 2, right). Vascular leakage was noted at the later stages of the angiogram. The patient underwent further treatment with panretinal photocoagulation. Although the subretinal fluid

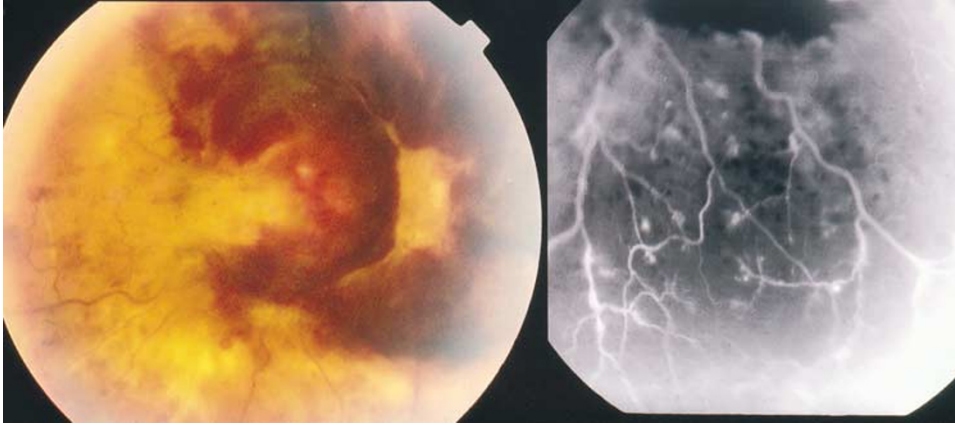


Figure 1 (Left) CRVO associated with retinal haemorrhages, exudative retinal detachment, and subretinal exudation. (Right) Fluorescein angiography demonstrates capillary nonperfusion, secondary telangiectasis, and staining of large retinal veins.

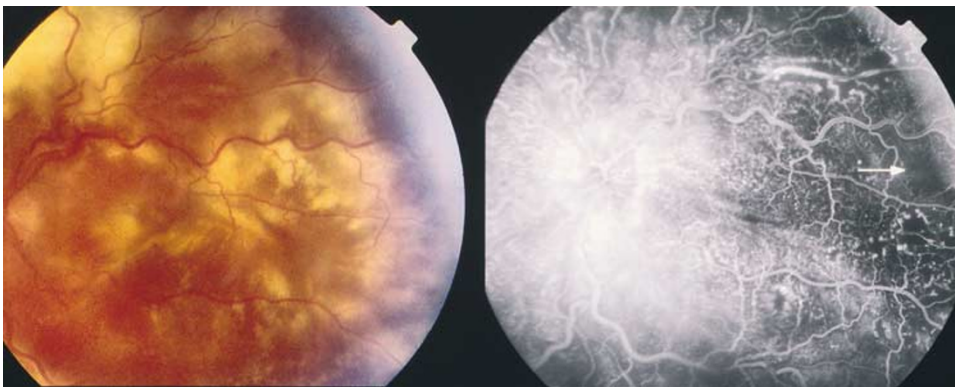


Figure 2 (Left) CRVO associated with extensive subretinal fluid and exudates. (Right) Fluorescein angiography demonstrates capillary nonperfusion (arrow) and extensive secondary telangiectasis.

and exudation absorbed, visual acuity deteriorated to no perception of light.

Comment

Exudative retinal detachment is a rare complication of retinal vein occlusion, which characteristically develops in ischaemic cases.¹⁻⁴ Schatz *et al*¹ described localised exudative retinal detachments following branch retinal vein occlusion in eight patients. There was complete resolution of the subretinal exudation in all six eyes treated in the quadrant of detachment with photocoagulation. Weinberg *et al*² reported exudative retinal detachment following central or hemicentral retinal vein occlusion in five patients. Neovascular glaucoma developed in two cases. The subretinal fluid absorbed completely or partially in the four eyes that were treated by panretinal photocoagulation; however, the final visual acuity was poor in all cases. Although the

two patients described in our study were young, review of the previously described cases shows a mean age of 56.4 years, range 18-78 years. Furthermore, there is no sexual or racial predilection.¹⁻⁴

Both patients presented here suffered ischaemic CRVO. In Case 1, the CRVO was ischaemic from onset and exudative retinal detachment developed within 3 months from diagnosis, whereas in Case 2 the CRVO progressed from nonischaemic to ischaemic over 7 weeks and the exudative retinal detachment developed 8 months following diagnosis. Angiography showed marked capillary nonperfusion, secondary telangiectasis, and late staining of the large retinal veins, which are characteristic of ischaemic retinal vein occlusion.⁵ The retinal telangiectasis is secondary to prolonged or permanent damage to retinal capillary endothelium and simulates congenital retinal telangiectasis.⁶

Oral steroids have occasionally been used with variable results in young, otherwise healthy, patients

who present with mild to moderate degrees of CRVO. In these patients, the term 'papillophlebitis' has been used by some authors.⁶ The typical presentation is that of normal or slightly reduced visual acuity, marked disc swelling, and retinal haemorrhages largely confined to the posterior fundus. It is thought that the venous obstruction is secondary to venous compression caused by disorders producing optic nerve and disc swelling, rather than a primary venous thrombosis occurring at the level of lamina cribrosa, as is usually the case in older patients. In our series, Case 2 was treated with a combination of panretinal photocoagulation and a short course of oral steroids. However, the visual acuity did not improve.

The pathogenesis of exudative retinal detachment following retinal vein occlusion appears multifactorial and includes vascular leakage from vascular damage, which in the two patients described here manifests not only by the marked volume of subretinal fluid but also by the presence of subretinal exudation, impaired retinal pigment epithelial and retinal capillary absorbing function, increased hydrostatic pressure, and absence of retinal venous collaterals.^{1,2,7} The mechanism of reattachment following photocoagulation may be owing to disruption of the retinal pigment epithelium thus allowing absorption of subretinal fluid, ablation of viable but pathologic tissue, or obliteration of the leaking capillaries.^{8,9}

Our cases illustrate that exudative retinal detachment following CRVO is associated with severe visual loss. Although panretinal photocoagulation is effective in absorption of subretinal fluid and exudation and regression of rubeosis iridis, the visual prognosis remains poor.

References

- 1 Schatz H, Yanuzzi L, Stransky TJ. Retinal detachment secondary to branch vein occlusion. Part 2. *Ann Ophthalmol* 1976; **8**: 1461–1471.
- 2 Weinberg D, Jampol LM, Schatz H, Brady KD. Exudative retinal detachment following central and hemi-retinal vein occlusions. *Arch Ophthalmol* 1990; **108**: 271–275.
- 3 Ravalico G, Battaglia Parodi M. Exudative retinal detachment subsequent to retinal vein occlusion. *Ophthalmologica* 1992; **205**: 77–83.
- 4 Scimeca G, Magarlar LE, Ausburger JJ. Chronic exudative ischaemic superior temporal branch retinal vein obstruction simulating Coat's disease. *Ann Ophthalmol* 1986; **18**: 118–120.
- 5 Laatikainen L, Kohner EM. Fluorescein angiography and its prognostic significance in central retinal vein occlusion. *Br J Ophthalmol* 1976; **60**: 411–418.
- 6 Gass JDM. *Stereoscopic Atlas of Macular Diseases Diagnosis and Treatment*, 4th ed. Mosby: St Louis, MO, 1997, pp 548–553.
- 7 Chahal PS, Fallon TJ, Kohner EM. Measurement of blood-retinal barrier function in central retinal vein occlusion. *Arch Ophthalmol* 1986; **104**: 554–557.
- 8 Kelley JS, Patz A, Schatz H. Management of branch retinal vein occlusion: the role of argon laser photocoagulation. *Ann Ophthalmol* 1974; **6**: 1123–1126.
- 9 Peyman GA, Spitznas M, Straatsma BR. Chorioretinal diffusion of peroxidase before and after photocoagulation. *Invest Ophthalmol* 1971; **10**: 489–495.

VV Savant, D Dwarika, RAH Scott and P Stavrou

Birmingham & Midland Eye Centre, City Hospital
NHS Trust, Birmingham, UK

Correspondence: P Stavrou
Birmingham & Midland Eye Centre, City Hospital
NHS Trust, Birmingham B18 7QU, UK
Tel: +44 121 5076854
Fax: +44 121 5076853
E-mail: panagiotastavrou@hotmail.com

Sir,

One-stop cataract clinics: feasible but flawed?

Eye (2004) **18**, 226–227. doi:10.1038/sj.eye.6700611

An escalating elderly population and earlier surgery is increasing the demand for cataract surgery. It is suggested that the process of cataract surgery must be streamlined to maximise use of resources.¹ Prasad *et al*² in 1998 examined the current process used in most hospitals. A 'three-stop' arrangement is the norm; a clinic consultation including listing for surgery, a subsequent preassessment clinic, and finally surgery. Prasad *et al*² proposed a modified 'two-stop' process; a clinic consultation including biometry/tests and subsequent surgery.

Two-stop surgery has progressed in some centres to 'one-stop' surgery. Patients are assessed and attend theatre the same day. Gaskell *et al*³ undertook an education programme with local optometrists who referred directly into a 'one-stop' facility. With the additional involvement of nurse practitioners telephoning patients prior to admission, they achieved a listing rate of 96%. Hughes *et al*⁴ listing rate was 82.1%, with an average of 6.5 patients operated on each day (range 4–8 patients). Currently in our eye unit, there is a 'two-stop' process in place. The purpose of our study was to assess the feasibility of one-stop cataract surgery without prior training requirements or additional resources.

Study

A retrospective study was carried out on cataract clinics held between May 2001 and February 2002. Information was collected including details of referral quality and the