

the current rate given by the Royal College of Ophthalmologists (RCO).⁴ The American Academy of Ophthalmology (AAO) rate of zonular dehiscence and/or posterior capsular rupture is 2.6%:⁵ exactly the same as our results. We feel that the lower AAO (2.6%) complication rate is a better target for post-CCST surgeons, and the higher RCO rate (4.4%) is more suitable for a trainee ophthalmologist.

Conflict of interest

The authors declare no conflict of interest.

References

- 1 Hospital activity and episode statistics. <http://www.doh.gov.uk/public/stats1.htm>.
- 2 Randelman JB, Wolfe JD, Woodward M, Lynn MJ, Cherwek H, Srivastava SK. The resident surgeon phacemulsification learning curve. *Arch Ophthalmol* 2007; **125**(9): 1215–1219.
- 3 Muhtaseb M, Kalhoro A, Ionides A. A system for preoperative stratification of cataract patients according to risk of intraoperative complications: a prospective analysis of 1441 cases. *Br J Ophthalmol* 2004; **88**: 1242–1246.
- 4 Royal College of Ophthalmologists. Clinical Guidelines. 2010. http://www.rcophth.ac.uk/core/core_picker/download.asp?id=544&filetitle=Cataract+Surgery+Guidelines+2010.
- 5 American Academy of Ophthalmology. *Cataract in the Adult Eye. Preferred Practice Pattern*. AAO: San Francisco, 2001.

R Girgis, T Salam and S Verma

Moorfields Eye Hospital, London, England
E-mail: tahrinasalam@hotmail.com

This data was presented as a poster at the Royal College of Ophthalmologists Annual Congress 2009.

Eye (2012) **26**, 756–757; doi:10.1038/eye.2011.357;
published online 3 February 2012

Sir, Acquired Brown's syndrome following cosmetic blepharoplasty

Brown's syndrome is a rare but serious complication of cosmetic blepharoplasty.

Case report

A 56-year-old male presented in 2006 with vertical diplopia, which had developed immediately after routine bilateral, upper-lid blepharoplasties performed as part of a 'medical tourism' package. The patient had a best-corrected visual acuity of 6/5 OD and 6/6 OS, with no previous ophthalmic history. Clinically, there was marked limitation of both dextrolevation and elevation of the left eye. Orthoptic measurements showed orthophoria in the primary position, but a manifest left hypotropia measuring 10 Prism Diopters in dextrolevation. Orbital palpation revealed no tenderness in the trochlea region. The patient had symptomatic diplopia in right gaze, which extended close to the primary position. Lees screen testing showed a mechanical limitation of ocular motility typical of an acquired Brown's syndrome (Figure 1). MRI imaging indicated normal and symmetrical extraocular muscles.

The clinical situation remained unchanged over a 4-year follow-up period. Peri-trochlear steroid injection was performed, to no effect. The patient was unwilling to have surgery on the contralateral eye to match the motility defect. The patient copes with the diplopia by using occlusion and has been discharged from clinical care.

Comment

Complications of blepharoplasty are generally mild, but acquired strabismus is a rare, serious complication. Both horizontal¹ and vertical strabismus^{2–4} have been described. Previous case reports of acquired Brown's syndrome following blepharoplasty are scarce. Bhola *et al*² reported on one case where MRI revealed scarring of the reflected superior oblique tendon. Kushner and Jethani³ reported one case where the superior oblique tendon could not be identified as a distinct structure following blepharoplasty. Syniuta *et al*⁴ reported on one case with concurrent superior oblique weakness and Brown's syndrome.

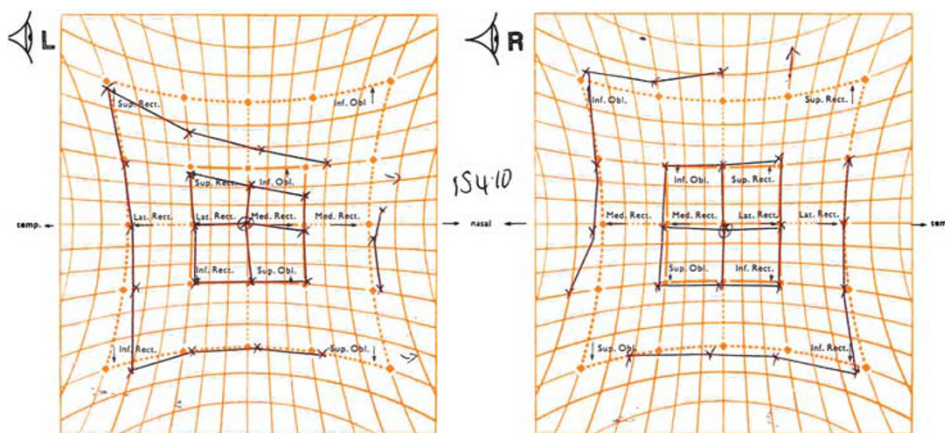


Figure 1 Hess chart showing left Brown's syndrome.

Surgery is indicated with either vertical diplopia in the primary position or severe compensatory head posture. Surgical correction is difficult and rarely successful in achieving binocular single vision in the primary position. In most cases, surgery is not indicated and patients are managed conservatively.

Blepharoplasty is the second most common cosmetic surgical procedure performed,⁵ and with the popularity of such procedures increasing alongside the increasing ease of access to such procedures, the public, media and professionals should be aware of the potential serious risks.

Conflict of interest

The authors declare no conflict of interest.

References

- 1 Mazow ML, Avilla CW, Morales HJ. Restrictive horizontal strabismus following blepharoplasty. *Am J Ophthalmol* 2006; **141**: 773–774.
- 2 Bholra R, Rosenbaum AL, Ortube MC, Demer JL. High-resolution magnetic imaging demonstrates varied anatomic abnormalities in Brown Syndrome. *J AAPOS* 2005; **9**: 438–448.
- 3 Kushner BJ, Jethani JN. Superior oblique tendon damage resulting from eyelid surgery. *Am J Ophthalmol* 2007; **144**: 943–948.
- 4 Syniuta LA, Goldberg RA, Thacker NM, Rosenbaum AL. Acquired strabismus following cosmetic blepharoplasty. *Plast Reconstr Surg* 2003; **111**: 2053–2059.
- 5 The British Association of Aesthetic Plastic Surgeons. Cosmetic rates of inflation: male, female breast ops on the rise. <http://www.baaps.org.uk/about-us/audit/453-cosmeticrates-of-inflation-male-female-breast-ops-on-the-rise> (accessed 31 October 2011).

C Wilde¹, M Batterbury² and J Durnian²

¹University of Liverpool, Liverpool, UK

²St Paul's Eye Unit, Royal Liverpool University Hospital, Liverpool, UK
E-mail: c.l.wilde@liv.ac.uk

This article has not been submitted to any other journal/meeting.

Eye (2012) **26**, 757–758; doi:10.1038/eye.2011.360;
published online 10 February 2012

Sir,

Visual perceptions induced by intravitreal injections

Charalampidou *et al*¹ described visual perceptions occurring after intravitreal injections of various medications. Their study addresses an important subject that is of interest to both healthcare professionals and patients, especially in view of the increasing number of intravitreal injections being performed to treat an expanding array of ocular pathologies.

The authors cited previous studies describing the visual experiences of patients undergoing various ophthalmic surgeries such as cataract extraction,² vitrectomy,^{3,4} and glaucoma filtration surgery.⁵ A key difference is that all these studies reported the visual perceptions experienced intraoperatively—that is, during the surgery itself.^{2–5} Thus, any unusual or

additional visual experiences reported could quite justifiably be attributed to the surgical procedure itself. For the current study, the cause of the visual perceptions at the 2-week interview may not be so clear. Were these perceptions the direct result of the intravitreal injection, or possibly some other cause?

Regarding the findings on light perception, we would like to clarify how the question was phrased at the second interview; specifically, whether additional clarification was provided to the patients. This is especially important as the 2-week questionnaire was self administered unless the patients were unable to see clearly.¹ The question in table 1 simply states 'Did you see light?'¹ As many patients who answered yes had good to moderate corrected distance visual acuity (logMAR < 0.7), they would definitely be able to perceive light in their daily activities. Was it made clear to the patients that the question referred to abnormal light perception and, if so, how was this distinction made consistently and reliably? If the light was not flashing (36% of patients),¹ did this refer to a constant source of light in addition to normal visual perception that they would experience? This is an important question to address so that we can present our patients and colleagues with accurate information, and to allow valid comparisons with follow-on studies.

Nevertheless, this study reports important information, which we hope will increase awareness and stimulate further discussion on patients' experiences during intravitreal injections.

Conflict of interest

The authors declare no conflict of interest.

References

- 1 Charalampidou S, Nolan J, Ormonde GO, Beatty S. Visual perceptions induced by intravitreal injections of therapeutic agents. *Eye* 2011; **25**: 494–501.
- 2 Tan CS, Au Eong KG, Kumar CM. Visual experiences during cataract surgery: what anaesthesia providers should know. *Euro J Anaesthesiol* 2005; **22**: 413–419.
- 3 Tan CS, Mahmood U, O'Brien PD, Beatty S, Kwok AK, Lee VY *et al*. Visual experiences during vitreous surgery under regional anesthesia: a multicenter study. *Am J Ophthalmol* 2005; **140**: 971–975.
- 4 Sugisaka E, Shinoda K, Ishida S, Imamura Y, Ozawa Y, Shinoda H *et al*. Patients' descriptions of visual sensations during pars plana vitrectomy under retrobulbar anesthesia. *Am J Ophthalmol* 2007; **144**: 245–251.
- 5 Riad W, Tan CS, Kumar CM, Au Eong KG. What can patients see during glaucoma filtration surgery under peribulbar anesthesia? *J Glaucoma* 2006; **15**(5): 462–465.

WK Ngo¹ and CSH Tan^{1,2}

¹National Healthcare Group Eye Institute, Singapore, Singapore

²Department of Ophthalmology, Tan Tock Seng Hospital, Singapore, Singapore
E-mail: Colintan_eye@yahoo.com.sg

Eye (2012) **26**, 758; doi:10.1038/eye.2012.16;
published online 17 February 2012