hallucinations, 23 (24%) now reported that they had started experiencing this symptom. The appearance or disappearance of the hallucinations could not be correlated to any change in visual parameters such as visual acuity or contrast sensitivity.

Visual hallucinations are a common symptom among patients with vision loss, and unless asked about this symptom most patients will not inform their clinician, despite the fact that they are concerned about why they are experiencing this peculiar symptom. Patients are very reassured when the nature of the hallucinations is explained to them. The results of this study allow clinicians to counsel patients that 28% of patients cease to experience these hallucinations after 1 year.

## **Conflict of interest**

The authors declare no conflict of interest.

### Acknowledgements

This work was funded by CNIB Baker Applied Research Fund.

### References

- 1 Menon GJ. Complex visual hallucinations in the visually impaired. A structured history-taking approach. *Arch Ophthalmol* 2005; **123**: 349–355.
- 2 Jackson ML, Bassett K, Nirmalan PV, Sayre EC. Contrast sensitivity and visual hallucinations in patients referred to a low vision rehabilitation clinic. *Br J Ophthalmol* 2007; 91(3): 296–298.

## ML Jackson<sup>1</sup> and KL Bassett<sup>2</sup>

<sup>1</sup>Massachusetts Eye and Ear Infirmary, Harvard Department of Ophthalmology, Boston, MA, USA <sup>2</sup>British Columbia Centre for Epidemiologic and International Ophthalmology, University of British Columbia, Vancouver, BC, Canada E-mail: Marylou\_jackson@meei.harvard.edu

*Eye* (2010) **24**, 1303–1304; doi:10.1038/eye.2010.12; published online 12 February 2010

#### Sir, Pattern of Scheimpflug imaging in anterior segment foreign bodies

The Pentacam Scheimpflug<sup>1</sup> camera (Oculus Inc., Wetzlar, Germany) captures images from the anterior cornea to posterior lens capsule. There is a single report

**Figure 1** (a) Metallic ILFB in the left eye at 0430 hours with associated posterior subcapsular cataract. The corneal wound of entry and the iris hole can be seen at 0300 hours. (b) Single-scan Pentacam image of the left eye through segment 135–315° showing a highly reflective ILFB with a spike height of 95 u on lens densitometry scale. The overlying anterior capsule opacification produced a densitometry reading of 38.8 u. (c) Single-scan Pentacam image of the same eye as in Figure 1a showing the ILFB lying just within the posterior subcapsular space, 1860 u away from the anterior lens capsule. Note that the posterior capsule is intact.





#### С







b



C DENTA



**Figure 2** (a) Slit lamp photograph of the right eye showing a wedge-shaped metallic foreign body resting on the iris surface. The overlying self-sealed corneal wound of entry is evident. (b) Gonio-photograph of the same eye as in Figure 2a showing the metallic foreign body anchored in the angle recess with surrounding synechiae. (c) Single-scan Pentacam image of the right eye through segment 190–10° with the image axis passing through the base of the foreign body produces a spike height of 37 u on densitometry scale. The overlying corneal wound of entry is highlighted with a higher spike on densitometry scale. Note that there is no lenticular opacity.

in literature of Scheimpflug imaging for localisation of intralenticular foreign body.<sup>2</sup> We evaluate the role of Pentacam in penetrating eye injury with anterior segment foreign bodies (FBs) by image-acquisition technique.

### Case report

*Case 1*: A 22–year-old male presented with BCVA of 20/200 OS after trauma while hammering chisel. Biomicroscopy showed a corneal entry wound at 0300 hours with corresponding iris hole and a metallic intralenticular foreign body at 0430 hours (Figure 1a). Enhanced imaging with Scheimpflug analysis (Figure 1b) revealed a highly reflective intralenticular foreign body (95 u) within the posterior subcapsular space, 1860 u away from the anterior capsule (Figure 1c).

*Case* 2: A 23–year-old male presented with BCVA of 20/40 OD after penetrating trauma to the right eye while working on a lathe machine. Biomicroscopy revealed a metallic FB on the iris surface at 0230 hours (Figures 2a and b). Pentacam image highlighted the corneal wound of entry and the reflective FB (37 u) within the angle recess (Figure 2c). There was no underlying iris or lens damage.

#### Comment

Precise localisation of retained intraocular foreign bodies is important in surgical decision making. The integrity of anterior and posterior capsule, zonules, and iris are the key factors in deciding management of anterior segment foreign bodies associated with or without cataract.<sup>3</sup> Scheimpflug imaging in case 1 allowed precise localisation and relation of the FB to intact posterior capsule.

Pentacam also allowed imaging of the trapped FB in the angle with meridional localisation and highlighted absence of damage to underlying iris and lens in case 2. The off-centered image axis gave a lower densitometry reading.

Though ultrasound biomicroscopy (UBM)<sup>4</sup> and anterior segment OCT<sup>5</sup> afford precise diagnosis of occult anterior segment FBs, their depth of penetration is limited. In addition, UBM is semi-invasive. Pentacam provides instant high-resolution images through a noncontact method in imaging of anterior segment FBs in clear media, useful in the setting of trauma. Thus, Pentacam is a potential tool for imaging in anterior segment FBs.

### Summary

## What was known before

- Anterior segment foreign bodies are common.
- Usually imaged with conventional radiographic techniques.
- Collateral damage could not be always assessed.

#### What this study adds

- Scheimpflug Pentacam imaging is a non-invasive modality.
- Assessment of damage to surrounding structures is possible.
- Rapid acquisition in setting of trauma is useful.

Eye

# **Conflict of interest**

The authors declare no conflict of interest.

# References

- Rabsilber TM, Khoramnia R, Auffarth GU. Anterior chamber measurements using Pentacam rotating Scheimpflug camera. *J Cataract Refract Surg* 2006; **32**(3): 456–459.
- 2 Grewal SP, Jain R, Gupta R, Grewal D. Role of Scheimpflug imaging in traumatic intralenticular foreign body. *Am J Ophthalmol* 2006; **142**(4): 675–676.
- 3 Arora R, Sangal L, Kumar M, Taneja M. Intralenticular foreign bodies: report of eight cases and review of management. *Indian J Ophthalmol* 2000; 48: 119–122.
- 4 Guha S, Bhende M, Baskaran M, Sharma T. Role of ultrasound biomicroscopy (UBM) in the detection and localization of anterior segment foreign bodies. *Ann Acad Med Singapore* 2006; **35**(8): 536–545.
- 5 Wylegala E, Dobrowolski D, Nowińska A, Tarnawska D. Anterior segment optical coherence tomography in eye injuries. *Graefes Arch Clin Exp Ophthalmol* 2009; 247(4): 451–455.

R Arora, S Mehta, JL Goyal, S Pahuja, D Gupta and R Gupta

Department of Ophthalmology, Guru Nanak Eye Centre and Maulana Azad Medical College, New Delhi, India E-mail: post2sachu@gmail.com

*Eye* (2010) **24**, 1304–1306; doi:10.1038/eye.2009.302; published online 18 December 2009

# The biological bandage contact lens: a novel technique for using the amniotic membrane in the treatment of persistent corneal epithelial defects

We read with interest the article entitled 'Amniotic membrane in ophthalmology: indications and limitations' by Rahman *et al*,<sup>1</sup> in which the authors provide a comprehensive review of the use of amniotic membrane (AM) transplantation in ocular surface reconstruction.

In the article the authors describe a new method of using the AM, retaining it in the eye with a conformer.

We would like to describe an alternative method, which we have found to be very well tolerated by the patient.

# Technique

The AM is obtained from Tissue Services, National Blood Services (Liverpool, UK, L24 8RB) as a  $2 \times 2$  or  $3 \times 3$  cm<sup>2</sup> sheet on nitrocellulose mounting paper in transport medium frozen at -40 °C. The AM is provided stromal side down and the overlap reflected onto the reverse of the paper.

The amnion is allowed to thaw and is rinsed according to the supplier's instructions. The mounting paper is taped flat onto a suitable surface (eg, a plastic kidney dish), having first peeled the AM from the corners to allow this (Figure 1a). A Flieringa ring, of an appropriate size to fit comfortably into the patient's fornices, is selected and placed on the uppermost, epithelial surface of the amnion. The peripheral amnion is lifted and placed at the centre of the ring. The amnion is then sutured in position with one running 7/O Vicryl suture (Figure 1b).



**Figure 1** (a) The mounting paper is taped flat to a suitable surface using steristrips. A Flieringa ring (previously measured to fit comfortably in patient fornices with minimal mobility) placed on the AM's epithelial surface. (b) The amnion is sutured with one 7/O Vicryl running suture around the ring. (c) The BBCL is easily placed upon the eye. (d) The eye with BBCL in is easy to examine, here showing tectonic penetrating keratoplasty with anterior chamber haemorrhage.