

Sir,
Cytomegalovirus and Eye

We read with interest the very comprehensive article by Carmichael on cytomegalovirus (CMV) and eye.¹ In addition to the clinical features reported by the author,¹ we would like to highlight some additional salient clinical points associated with CMV and eye.

With regard to clinical manifestation of CMV anterior uveitis, the iris atrophy is patchy or diffuse, with no posterior synechiae and no posterior segment changes.² It is usually associated with increased intraocular pressure.² Chee and Jap³ also reported the presence of an immune ring in the cornea of patients with CMV anterior uveitis. Nodular endothelial lesions are white, medium-sized, nodular lesions surrounded by a translucent halo, which are significantly associated with CMV infection in cases of chronic anterior uveitis.^{2,3} Anterior uveitis with ocular hypertension resistant to topical steroid therapy and not clinically suggestive of the herpes group of virus makes the clinician suspect CMV infection.² CMV anterior uveitis responds to ganciclovir, but the relapse rate is high and prolonged therapy may be required. As reported by Jap and Chee,² ganciclovir gel induced a response in two-thirds, but uveitis recurred in 57% of acute and 25% of chronic inflammation. They recommended ganciclovir gel as first-line therapy in view of its minimal adverse effects and affordability.²

As mentioned by the author,¹ CMV is a neurotropic virus with predilection to the retina and central nervous system. Also reported in the literature is CMV-related optic neuritis.^{4,5} CMV optic neuritis is a rapidly-blinding disease. CMV affects the optic nerve from an adjacent focus of peripapillary CMV retinitis and, concomitantly, peripheral foci of CMV retinitis may be noted.^{4,5}

Oral valganciclovir has proven to be a new and highly efficacious alternative to the chronic administration of ganciclovir in patients with CMV retinitis. In addition to its excellent bioavailability and favourable pharmacokinetic profile, valganciclovir has also proved to be cost effective and is the most widely used drug in the armamentarium for the treatment of CMV retinitis.⁶ Valganciclovir has answered the great need of patients with CMV retinitis for an injection-free medication in the induction and maintenance phases of therapy.⁶

Conflict of interest

The authors declare no conflict of interest.

References

- Carmichael A. Cytomegalovirus and the eye. *Eye* 2012; **26**: 237–240.
- Jap A, Chee SP. Viral anterior uveitis. *Curr Opin Ophthalmol* 2011; **22**: 483–488.
- Chee SP, Jap A. Immune ring formation associated with cytomegalovirus endotheliitis. *Am J Ophthalmol* 2011; **152**: 449–453; e1.
- Ioannidis AS, Bacon J, Frith P. Juxtapapillary cytomegalovirus retinitis with optic neuritis. *J Neuroophthalmol* 2008; **28**(2): 128–130.
- Mansour AM. Cytomegalovirus optic neuritis. *Curr Opin Ophthalmol* 1997; **8**(3): 55–58.
- Patil AJ, Sharma A, Kenney MC, Kuppermann BD. Valganciclovir in the treatment of cytomegalovirus retinitis in HIV-infected patients. *Clin Ophthalmol* 2012; **4**: 111–119.

R Agrawal

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

Eye (2012) **26**, 1152; doi:10.1038/eye.2012.103;
 published online 25 May 2012

Sir,
Postoperative eye protection after cataract surgery

We read with interest the article by Lindfield *et al*¹ that reported that the use of eye shields following cataract surgery does not confer additional safety advantage. Although such studies are timely and relevant in the continuous effort to improve patient care, it is important to point out some limitations.

The frequency of complications such as endophthalmitis following cataract surgery are very rare, ranging from 0.05 to 0.30%.^{2,3} Therefore, studies such as the current one, which included only 425 patients in the shieldless group,¹ are not adequately powered to detect a significant difference in the rates of endophthalmitis. If even a single case of endophthalmitis had occurred in the shieldless group, the rate would have been 0.24%, which would certainly be a cause of concern, regardless of whether it was significantly higher compared with 0.10% in the shielded group. Therefore, the clinical implications of differences in complication rates between the two groups should be interpreted with caution.

In addition, only 10% of the study population were surveyed, and approximately half of the 46 patients (10% of the study population) felt that eye shields were 'uncomfortable' and preferred not to wear one.¹ However, these patients did not have a prior experience of not wearing an eye shield to compare with. In a prospective randomized controlled trial of 60 consecutive patients undergoing bilateral cataract surgery with one eye patched and the other without postoperative patching, Stifter *et al*⁴ reported that within the first 4 hours of cataract surgery, pain scores were significantly higher in eyes who had no eye patches (mean score 1.7 *vs* 0.55, $P < 0.001$), and postulated that this was related to the faster tear break up time in patients with no ocular protection (4.6 *vs* 7.1 s, $P < 0.001$). At the end of this study, 65% of patients would have preferred to receive postoperative ocular protection.⁴ Another study⁵ also reported that patching could modulate inflammation and aid in wound healing.

In summary, this study contributes useful information regarding the benefits of postoperative ocular protection.

However, much larger prospective studies will be required to determine if there are significant differences in the rates of postoperative complications with and without patching.

Conflict of interest

The author declares no conflict of interest.

References

- 1 Lindfield D, Pasu S, Ursell P. Shield or not to shield? Postoperative protection after modern cataract surgery. *Eye* 2011; **25**: 1659–1660.
- 2 Aaberg TM Jr, Flynn HW Jr, Schiffman J, Newton J. Nosocomial acute-onset postoperative endophthalmitis survey. A 10-year review of incidence and outcomes. *Ophthalmology* 1998; **105**: 1004–1010.
- 3 Taban M, Behrens A, Newcomb RL, Nobe MY, Saedi G, Sweet PM *et al.* Acute endophthalmitis following cataract surgery: a systematic review of the literature. *Arch Ophthalmol* 2005; **123**: 613–620.
- 4 Stifter E, Menapace R. “Instant vision” compared with postoperative patching: clinical evaluation and patient satisfaction after bilateral cataract surgery. *Am J Ophthalmol* 2007; **143**: 441–448.
- 5 Lembach M, Linenberg C, Sathe S, Beaton A, Ucakhan O, Asbell P *et al.* Effect of external ocular surgery and mode of post-operative care on plasminogen, plasmin, angiostatin and alpha(2)-macroglobulin in tears. *Curr Eye Res* 2001; **22**: 286–294.

LW Lim¹, MC Chew¹ and CS 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**, 1152–1153; doi:10.1038/eye.2012.95;
published online 25 May 2012

Sir,
Response to Lim *et al*

We thank Lim *et al*¹ for their constructive comments and concur that a larger, prospectively designed study is certainly required. Our data were retrospective, and despite including a significant number of patients (1407) it was never our intention to statistically prove that omitting a shield confers a safety advantage over shielding. The data were collected and published to illustrate that not shielding in our practice over the last 12 months conferred no disadvantage. We hoped to stimulate discussion as to why routine shielding still occurs despite advances in surgical technique with some interesting comparative data.

We also would like to reiterate the differences between shields and patches. Patches protect the ocular

surface against particulates and provide visual occlusion. Their role in the immediate postoperative period has both supportive (as above) and derisory² evidence. Shields are supplied to protect surgical wounds and are commonly prescribed for up to 3 weeks following cataract surgery at night. A small group of our patients were randomly selected and questioned about their experiences of shields. Comparing these shield-related responses to studies on patching is not justified.

Conflict of interest

The authors declare no conflict of interest.

References

- 1 Lim LW, Chew MC, Tan CS. Postoperative eye protection after cataract surgery. *Eye* 2012; **26**(8): 1152–1153.
- 2 Mayer S, Wirbelauer C, Haberle H, Altmeyer M, Pham DT. Evaluation of eye patching after cataract surgery in topical anaesthesia. *Klin Monbl Augenheilkd* 2005; **222**(1): 41–45.

D Lindfield

Sutton Eye Unit, Sutton Hospital, Surrey, UK
E-mail: drdanlindfield@gmail.com

Eye (2012) **26**, 1153; doi:10.1038/eye.2012.96;
published online 25 May 2012

Sir,
Case report of cytomegalovirus retinitis in an HIV-positive patient with a CD4-count nadir of 254 cells per μ l

Cytomegalovirus retinitis (CMVR) is an AIDS-defining diagnosis, and typically occurs when CD4 counts fall below 50 cells per μ l.¹ We report an unusual case of CMVR in a patient whose CD4 counts never decreased below 250 cells per μ l.

Case report

A 30-year-old man was diagnosed with HIV infection 3 years ago, and CD4 counts remained between 600 and 700 cells per μ l since diagnosis. After 2 years, his counts decreased from 565 to 426 cells per μ l over 3 months. Antiretroviral therapy (ART) consisting of tenofovir/emtricitabine and efavirenz was commenced. Three months later, he complained of right eye blurring with floaters. Vision was 6/9 and fundoscopy revealed active CMVR, corroborated on aqueous PCR for CMV (Figure 1). His CD4 count was 254 cells per μ l and HIV viral load was 42 593 copies per ml that increased to 165 800 copies per ml 2 weeks later. He had no other AIDS-defining illnesses.

Comment

CMVR is a late manifestation of AIDS when CD4 counts are <50 cells per μ l. Although reports have documented