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Sir,

An unusual case of orbital cellulitis due to Panton Valentine Leucocidine producing *Staphylococcus aureus*

We report an unusual case of orbital cellulitis due to Panton Valentine Leucocidin (PVL) producing *Staphylococcus aureus* bacteraemia secondary to a furuncle. Both the orbital cellulitis and the secondary pulmonary involvement resolved completely with linezolid and clindamycin.

Case report

A 68-year-old Asian male presented with rapid onset right upper lid swelling, redness and pain. The symptoms started 24 h after a small boil on the tip of his nose and then progressed to a full blown orbital cellulitis the next day. He had poorly controlled type 2 diabetes mellitus (HbA1c 6.9). On examination visual acuity was

light perception and he had axial proptosis, a very tense orbit, severe chemosis and ophthalmoplegia (Figure 1). He was afebrile and did not have any known immune deficiency or compromise. Blood culture was taken and intravenous flucloxacillin, ceftriaxone and metronidazole were administered.

After 48 h of treatment there was no clinical improvement. He developed pleural effusion (Figure 2). Results of blood culture yielded PVL-positive *Staphylococcus aureus* with leukocytosis of 40 000 cells/ml and CRP was 187 mg/l. Treatment was switched to Linezolid and clindamycin. Pulmonary involvement and orbital cellulitis resolved after a 2-week course of new regime.

Figure 2 The pulmonary CT angiogram shows left-sided dependent pleural effusion and a greater right-sided loculated effusion with a paraspinal pleural collection.

Figure 1 (a) A photo of the patient. (b) Axial CT scan of the orbit, showing several patchy areas of inflammatory change within the cone area.

Comment

Orbital cellulitis is potentially a life- and sight-threatening condition needing immediate ophthalmology/ENT management. In 90% of cases, orbital cellulitis is secondary to sinusitis. In small number of patients, bacteraemia is the culprit. Reports suggest *Staphylococcus* species are increasingly becoming resistant to methicillin both nosocomial and community-acquired infections (CA-MRSA). A recent study from the National Health and Nutrition Examination Survey found the incidence of *S. aureus* colonization in the US population to be 31.6% and the incidence of MRSA carriers to be 0.84%.¹ Mathias *et al*² showed that orbital cellulitis is preceded by boil/chalazia in CA-MRSA cases. CA-MRSA carries PVL gene, which is a cytotoxin that destroys cells.³ Several studies suggest that CA-MRSA is an important emerging cause of orbital cellulitis.⁴ Our case is unusual because the patient developed not only fulminant orbital cellulitis following a CA-MRSA skin infection but also secondary pleural effusion.

We believe in cases of orbital cellulitis not responding to conventional antibiotic regime, clinicians should consider the possibility of infection from PVL producing *Staphylococcus aureus* and institute appropriate treatment.

Conflict of interest

The authors declare no conflict of interest.

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Sir,
Response to Tatham and Brookes

We were pleased that the Scientific Journal of the Royal College of Ophthalmologists recognizes that immediate sequential bilateral cataract surgery (ISBCS) now merits open discussion in the pages of the August 2012 edition of your journal.

We read with interest the submission by Tatham and Brookes,¹ but could not follow their logic. Their paragraph 1 seems to summarize all the published peer-reviewed evidence in favor of ISBCS. However they state that the interest in ISBCS is fueled by economic benefits. In fact, many jurisdictions financially penalize bilateral cataract surgery, and in many countries it is a money-losing proposition for the surgeon. Almost all the articles referenced by Tatham and Brookes discuss the medical benefits to the patients, which are considerable, but not economic benefits.² We would also like to encourage health care providers/financing bodies to take in account patient benefits and logistical and economic effects for the social system as a whole when deciding upon the reimbursement of ISBCS.

Paragraph 2 waves the shroud of ‘bilateral blindness’, but omits that bilateral simultaneous ophthalmic surgery is common, and the risk of bilateral infection has been shown to be extremely small in bilateral cataract surgery.³ LASIK, blepharoplasties, ptosis, and squint surgery are all commonly performed bilaterally, and bilateral simultaneous retinal surgery is not that rare.

In paragraphs 3 and 4, they effectively summarize the recommendations of our Society (see www.isbcs.org), for which we thank them, as good advice deserves repetition. However, in paragraph 5, they state that ISBCS may be ‘logistically difficult’. We disagree; if ISBCS is a regular event, then there are no logistical problems. Setting up for cases of ISBCS is much easier than for double the number of single eye cases. They then turn to the question of endophthalmitis, stating that diabetes is a risk factor. This does not appear to be the opinion of The Royal College of Ophthalmologists, who do not mention it in their document ‘Cataract Surgery Guidelines’ published September 2012. Curiously, they also state that if one eye develops endophthalmitis, there is less chance of both being involved by deferring second eye surgery. We know of no evidence to support this statement. As it is known that most cases of endophthalmitis emanate from the patient’s own flora, it is questionable whether delaying the second eye reduces the risk for that eye. Furthermore, they refer to diabetes and blepharitis as risk factors, and while we agree that this is widely believed, and many increase precautions in the presence of these conditions, we again know of no published data on which to base these suppositions.

In paragraph 6, the authors turn to economics and turnover. Our experience is the reverse of their suppositions; we can easily add one or two eyes to