

Figure 1 Coronal MRI (T1, post-gadolinium) image showing enlarged right cavernous sinus and left parapharyngeal abscess.

Case report

A 23-year-old female patient was admitted to the infection unit with high fever (40°C) left facial swelling, right proptosis, diplopia, and decreased vision for 2 days. She had been treated with clarithromycin for a sore throat 3 weeks before presentation. Examination revealed visual acuity of 6/24 on the right and 6/5 on the left, proptosis (26 mm OD, 22 mm OS), conjunctival chemosis, and painful limitation of gaze.

CT scan revealed a left-sided parapharyngeal abscess with a right-sided cavernous sinus thrombosis. Throat examination revealed a parapharyngeal abscess abutting the epiglottis. She underwent emergency left tonsillectomy with drainage of the abscess and was commenced on high-dose intravenous benzyl penicillin with metronidazole.

On the third day of admission, she developed left arm weakness and a right facial palsy. The MRI scan revealed diffuse swelling of right hemisphere with swollen right cavernous sinus and enhancement of adjacent sphenoid sinus (Figure 1). Blood and aspirate culture grew *F. necrophorum* sensitive to penicillin, metranidazole, and clindamycin. She received 4 weeks of the appropriate intravenous antibiotics and had a full recovery.

Comment

F. necrophorum is a Gram-negative anaerobic commensal of human oropharynx. Its pathogenesis is attributed to endotoxin, lipopolysaccharide, and haemolysin. The lipopolysaccharide is shown to aggregate platelets and thought to be responsible for thrombotic complications of Lemierre's disease.² *F. necrophorum* septicaemia tends to occur after a sore throat.³ Antibiotic therapy is the

mainstay of treatment. Most species are susceptible to penicillin, cephalosporin, metronidazole, clindamycin, tetracycline, and chloramphenicol.⁴ In our case, the organism was sensitive to penicillin and metronidazole. Prolonged aggressive treatment and debridement are necessary.⁵ Culture of blood and aspirate from the abscess seems valuable in isolating the organism. *F. necrophorum* infection must be considered in any case of orbital cellulitis with other coexisting focus of infection or venous thrombosis.

References

- 1 Lemierre A. On certain septicaemias due to anaerobic organisms. *Lancet* 1936; 1: 701–703.
- 2 Horose M, Kiyoyama H, Ogawa H, Shinjo T. Aggregation of bovine platelets by *Fusobacterium necrophorum*. *Vet Microbiol* 1992; 32: 343–350.
- 3 Bentham JR, Pollard AJ, Milford CA, Anslow P, Mike PG. Cerebral infarct and meningitis secondary to Lemierre's syndrome. *Pediatr Neurol* 2004; 30(4): 281–283.
- 4 Hageljsaer Kristensen L, Prag J. Human necrobacillosis, with emphasis on Lemierre's syndrome. *Clin Infect Dis* 2000; 31(2): 524–532.
- 5 Escardo JA, Feyi-Waboso A, Lane CM, Morgan JE. Orbital Cellulitis caused by *Fusobacterium necrophorum*. *Am J Ophthalmol* 2001; 131(2): 280–281.

V Hegde¹, D Mityr¹, D Mc Ateer² and A Azuara-Blanco²

¹Department of Ophthalmology, Princess Alexandra Eye Pavilion, Edinburgh, UK
²Department of Ophthalmology and Radiology, Aberdeen Royal Infirmary, Foresterhill, Aberdeen, UK
 E-mail: mityrd@gmail.com

Eye (2009) 23, 1473–1474; doi:10.1038/eye.2008.202; published online 4 July 2008

**Sir,
 Bacterial contamination of the disposable prism holder during routine tonometry for intraocular pressure**

The theoretical risk of prion transmission has led to the widespread use of disposable prism tonometers.¹ This has led to the marketing of products such as TONOSAFE (Haag-Streit UK), who state in their product information that 'disposable prisms are convenient, effective method of reducing the risk of cross infection between patients and eliminating the need to clean and disinfect prisms.'² The actual prisms have been shown to enable accurate pressure measurement and to be sterile.^{3,4} The potential risk of transmission of microbial contamination of the holder for disposable applanation prisms has yet to be reported (see Figure 1).

Case report

In the light of this, an audit of handwashing was performed during a general ophthalmology checkup. This involved plating of ophthalmologist's fingers, after handwashing, following the interaction with patients.

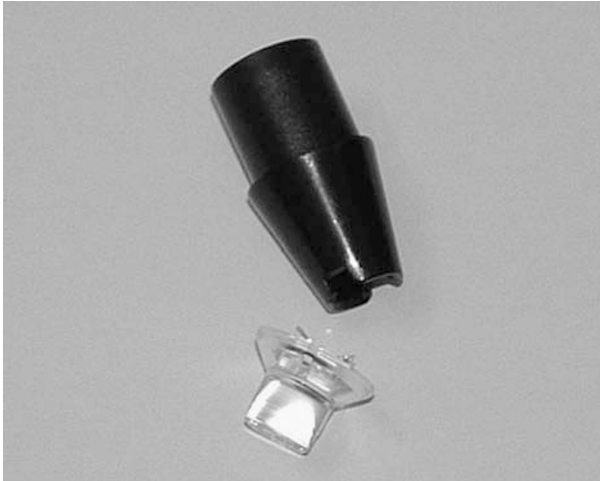


Figure 1 Illustration of TONOSAFE prism and holder.



Figure 2 Blood agar plate from plating of holder showing the growth of *Staphylococcus aureus* following the evaluation by Staphareux.

The sterile holder (TONOSAFE) was also plated after use with each successive patient ($n = 10$). The next day, the process was repeated, but the holder was disinfected with alcohol wipes between patients (as was standard in the traditional Goldmann tonometer).

Normal skin flora was grown on doctor's blood agar plates. This included *Staphylococcus aureus* and coagulase-negative *Staphylococcus*. These organisms were shown to be present on the plates of the holder even after the first patient (see Figure 2). We believe that they had transferred from patient to holder through the doctor's hands. Alcohol wiping of holder removed all organisms.

Comment

Disposable tonometers have been advocated as a better replacement for Goldmann tonometers as they 'eliminate the need to clean and disinfect prisms.'² This audit has shown that bacteria can be transferred to the holder and

are transferred between patients through the clinicians' hands (despite handwashing). The transmission of *S. aureus* (including MRSA) presents a potential risk for infection control, particularly in the elderly population.⁵ Although this is unlikely to be of pathological significance, these results contradict the manufacturer's claims regarding their product.

We believe that even the disposable holders should be cleaned with alcohol wipes between patients to reduce this risk. The original reason for introducing disposable prisms was to eliminate transfer. These results indicate that this risk has not been averted.

References

- 1 Amin SZ, Smith L, Luthert PJ, Cheetham ME, Buckley RJ. Minimising the risk of prion transmission by contact tonometry. *Br J Ophthalmol* 2003; **87**(11): 1360–1362.
- 2 http://www.haagstreituk.com/products/index.html?cat_branch=tonosafe_disposable_prisms/.
- 3 Salvi SM, Sivakumar S, Sidiki SS. Use of disposable prism tonometry in routine clinical practice. *Eye* 2005; **19**(7): 743–746.
- 4 Cillino S, Casuccio A, Giammanco GM, Mammina C, Morreale D, Di Pace F *et al*. Tonometers and infectious risk: myth or reality? Efficacy of different disinfection regimens on tonometer tips. *Eye* 2007; **21**(4): 541–546.
- 5 Kuramoto-Chikamatsu A, Honda T, Matsumoto T, Shiohara M, Kawakami Y, Yamauchi K *et al*. Transmission via the face is one route of methicillin-resistant *Staphylococcus aureus* cross-infection within a hospital. *Am J Infect Control* 2007; **35**(2): 126–130.

D Lockington, S Mukherjee, and D Mansfield

Department of Ophthalmology, Inverclyde Royal Hospital, Scotland, UK
E-mail: davidlockington@hotmail.com

The abstract has been accepted as a poster for Royal College of Ophthalmologists Congress in Liverpool 2008.

Eye (2009) **23**, 1474–1475; doi:10.1038/eye.2008.163; published online 6 June 2008

Sir, Posterior scleritis presenting with simultaneous branch retinal artery occlusion and exudative retinal detachment

Posterior scleritis is a potentially blinding but frequently underdiagnosed condition. Serous retinal detachment (SRD) is a common finding,¹ whereas vascular occlusions are rare.^{2–4} We report simultaneous SRD and retinal arterial occlusion as a presentation of posterior scleritis, successfully treated with systemic corticosteroids.

Case report

A 26-year-old lady presented with painful diminution of vision OD for a week. She had a similarly painful visual