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## LETTERS TO THE JOURNAL

Sir,

### **Prevalence of Conjunctival Concretions**

Conjunctival concretions are of common occurrence and appear as minute hard yellow or white spots in the palpebral conjunctiva. They represent the inspissated degenerative products of leucocytes which have wandered through the epithelium and of cast off epithelial cells.<sup>1</sup> Usually they give rise to no symptoms. When they project from the conjunctival surface, however, they give rise to irritation and a foreign body sensation in the eye. They may even scratch the cornea. In this study, we looked for the presence of concretions in 100 consecutive patients seen in a casualty department to determine their prevalence in this self-selected population and the proportion that are symptomatic.

### *Methods*

Both eyes of 100 patients presenting to the eye casualty department of the Plymouth Royal Eye Infirmary were examined with the slit lamp. The lids of both eyes were everted in all patients. The number of concretions beneath the upper lid and within the lower lid were counted.

Superficial concretions were removed in patients in whom the symptoms of eye irritation were judged to be attributable to them. These patients were followed up after 1 week to see whether their symptoms had resolved.

### *Results*

Concretions were found in 42% of the patients seen. In only 3 patients (7% of those with concretions) were the symptoms attributed to concretions. The superficial concretions were removed from the affected eye, and at 1 week follow-up, all these patients were asymptomatic.

Concretions were present in 45% of males and 29% of females. There was no significant difference between the number of concretions found between the upper (left, 51; right, 57) and lower lids (left, 50; right, 46) of either eye. Superficial concretions were 3½ times as common as deep concretions. Seventy per cent of patients with concretions were between

30 and 60 years of age in this sample, though many references state that they are commoner in the elderly.<sup>1-4</sup>

### *Discussion*

Conjunctival concretions have been associated with keratoconjunctivitis,<sup>3</sup> post-trachomatous degeneration<sup>4,5</sup> and sulphadiazine eyedrop administration.<sup>6</sup> Their gelatinous, paste-like consistency has been put forward as a reason why many patients experience no symptoms.<sup>4</sup>

Histological studies have failed to reveal the presence of calcium,<sup>3,4</sup> though the presence of calcium has been referred to in the past.<sup>1</sup> A hypothetical mechanism for the formation of concretions has been described, in which cast-off epithelial cells protrude beyond the exit of a recess formed by hyperplastic conjunctival epithelium. It has been suggested that this enlarging 'lithiasis' is responsible for causing foreign body sensation.<sup>4</sup>

The 'lithiasis' has been shown histologically to contain eosinophilic amorphous material that stains positive for neutral mucopolysaccharide. Goblet cells were seen in the epithelium surrounding concretions in the lower fornix, but rarely in that from the upper tarsal concretion. One tenth of the specimens analysed had mononuclear inflammatory cell infiltrates.<sup>4</sup>

This study shows that conjunctival concretions are common in the casualty department sample studied. Only in a small minority (3%) were they symptomatic at presentation. It is probable a cohort study would reveal a higher cumulative incidence of symptoms. It is likely that many patients do not report the minor irritation caused by their concretions.

However, in patients complaining of ocular irritation, a superficial conjunctival concretion should be considered as a cause if no other apparent diagnosis is evident on slit lamp examination. In such cases the concretion should be removed with a needle after instillation of topical anaesthetic.

### Conclusions

Examination of eye casualty attenders showed that concretions are common in the sample studied. Symptomatic irritation, however, was present in only 7% of all patients with concretions.

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### References

1. Duke-Elder S. Diseases of the outer eye: conjunctiva. In: System of Ophthalmology, vol 8, pt 1. St Louis: CV Mosby, 1965:585-6.
2. Kowal VO, Adamis AP, Albert DM. Conjunctival concretions. Am J Ophthalmol 1992;118:640-1.
3. Chin GN, Chi EY, Bunt AH. Ultrastructural and histochemical studies of conjunctival concretions. Arch Ophthalmol 1980;98:720.
4. Chang SW, Hou PK, Chen M. Conjunctival concretions. Arch Ophthalmol 1990;108:405.
5. Wilson RP. The pathology of trachoma. Bull Ophthalmol Soc Egypt 1936;29:1-5.
6. Boettner EA, Fralick FB, Wolter JR. Conjunctival concretions of sulfadiazine. Arch Ophthalmol 1974; 92:446.

Sir,

### Chronic Endophthalmitis after Extracapsular Cataract Extraction Caused by *Mycobacterium chelonae* Subspecies *abscessus*

Infectious endophthalmitis is a rare but devastating complication of cataract surgery which most frequently occurs in the immediate post-operative period. In recent years, however, there has been a growing number of reports of chronic endophthalmitis following cataract extraction. The term 'chronic' has been used to describe endophthalmitis that presents 1 month or more after cataract surgery and that frequently persists, with recurrent low-grade inflammation, for months thereafter.<sup>1</sup> The presentation of the inflammation that occurs in chronic post-operative endophthalmitis is often delayed; the inflammation is indolent and may be partially suppressed by topical and systemic corticosteroids.

Several organisms have been isolated from eyes with chronic post-operative inflammation, including *Propionibacterium* species;<sup>1,2</sup> staphylococci (more frequently *S. epidermidis* but occasionally *S. aureus*);<sup>2-5</sup> *Achromobacter* species;<sup>3</sup> *Cephalosporium* species;<sup>6</sup> *Acremonium* species;<sup>7</sup> *Paecilomyces* species;<sup>7</sup> *Corynebacterium* species;<sup>3</sup> *Candida parapsilosis*;<sup>8</sup> *Aspergillus* species;<sup>7</sup> *Mycobacterium chelonae*;<sup>9</sup> and *Nocardia asteroides*.<sup>10</sup>

We report a case of delayed-onset chronic endophthalmitis caused by *Mycobacterium chelonae* subspecies *abscessus* that followed extracapsular cataract extraction with implantation of a posterior chamber intraocular lens.

### Case Report

A 65-year-old man was referred to the Retina Service at King Abdul Aziz University Hospital 8 months after undergoing an uncomplicated extracapsular cataract extraction with implantation of a posterior chamber intraocular lens (IOL) in the left eye. The post-operative course had been unremarkable except for the persistence of 1+ cells in the anterior chamber. Four weeks after surgery, the patient complained of severe pain and redness in the operated eye. The patient was treated with topical and subconjunctival corticosteroids and antibiotics. The course of the inflammation was characterised by exacerbations and remissions with a progressive decrease in vision. The patient was known to have insulin-dependent diabetes mellitus.

The patient's visual acuity was 6/24 in the right eye and hand movement in the left eye. Examination of the right eye revealed nothing remarkable except for the presence of cataract. Examination of the left eye showed mild swelling of the eyelids. The conjunctiva was injected. The anterior chamber showed 3+ cells, flare and hypopyon. Intraocular pressure was 16 mmHg. A well-positioned posterior chamber IOL was noted. Multiple white plaques were noted between the IOL and the posterior capsule (Fig. 1). The red reflex was absent and there was no retinal view. Ultrasonography showed dense vitreous opacities with multiple strands and membranes; the retina was attached. The patient was thought to have chronic endophthalmitis caused by an organism of low virulence.

The patient underwent pars plana vitrectomy; aqueous and vitreous humour specimens were

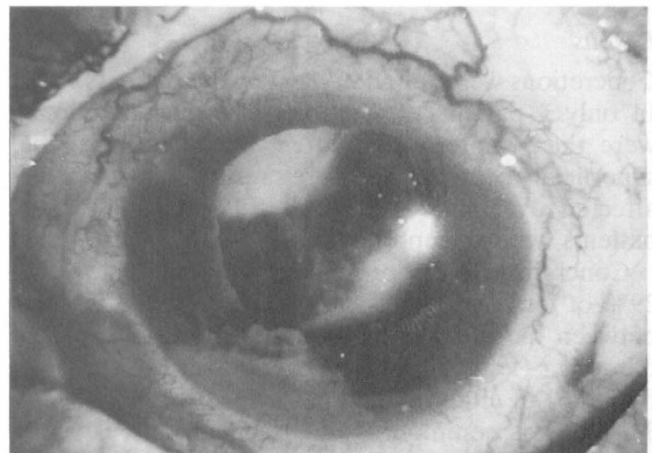


Fig. 1. White capsular plaques at the periphery of the posterior chamber lens implant.