

Ocular examination revealed vision of 2/60 right eye and 6/36 left eye. There was right proptosis (22 mm right and 15 mm left). The intraocular pressures were normal, there was a right afferent pupillary defect, nuclear sclerosis and funduscopy revealed a pale right optic disc. There were no other retinal changes. Thyroid function tests and serum calcium were normal (2.21 mmol/l) but alkaline phosphatase was markedly raised (201 KA units). A skull radiograph revealed extensive Paget's disease. Orbital B-ultrasonography was normal. Computed tomography (Fig. 1) demonstrated extensive basilar invagination but no evidence of pituitary macroadenoma. Maxillary and ethmoid sinus involvement reduced the volume of the orbits causing displacement of the globes anteriorly, particularly on the right. Visual evoked responses were consistent with compression of the right optic nerve.

The patient was commenced on oral disphosphonates and, as cataract surgery was declined, registered as partially sighted and referred for low vision and auditory rehabilitation.

Discussion

Ocular complications of Paget's disease have been recognised since James Paget reported that 4 of the 23 patients he had followed became blind. Extraocular disorders are often due to compression and have included optic atrophy, extraocular muscle and nerve palsies, ptosis, nasolacrimal duct obstruction and papilloedema. Intraocular complications include corneal opacities, cataract, angioid streaks and macular degeneration. Retinal artery occlusion, retinal haemorrhage and chorioretinitis may also occur. The visual fields are usually normal except in cases of optic atrophy or macular degeneration.^{1,2}

Exophthalmos occurs rarely and its imaging in Paget's disease by computed tomography has not previously been described. The mechanism has been attributed variously to direct orbital volume reduction, a possible exophthalmos-producing substance and back pressure from the cavernous sinus.³

S. Kheterpal, MA MRCOphth
S. M. Downes, FRCOphth
E. M. Eagling, FRCS, FRCOphth

Birmingham and Midland Eye Hospital
Church Street
Birmingham B3 2NS
UK

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Sir,

Bacterial Keratitis Following Excimer Laser Photorefractive Keratectomy: A Case Report

The 193 nm argon fluoride excimer laser has been used since 1989 to correct myopia in sighted eyes. Its human use was preceded by animal, blind eye and partially sighted eye studies. We report a case of *Streptococcus pneumoniae* keratitis following excimer laser photorefractive keratectomy (PRK). To the best of our knowledge this complication has not been previously reported.

Case Report

The patient, a 71-year-old man, presented to the casualty department of our hospital with a 1 week history of severe pain, photophobia and blurring of vision of his left eye. He had undergone excimer laser PRK using a 4 mm ablation zone at another centre to correct his left myopia 9 weeks earlier. Clobetasone butyrate (Eumovate, Cusi) had been prescribed four times a day to his left eye post-operatively and was still being instilled. He was a high myope with a best corrected visual acuity of 6/36 right eye, 6/12 left eye (the right eye was amblyopic). His pretreatment refraction was -19.00 D/+4.00 D×95 right eye, -15.00 D/+1.50×115 left eye.

His corrected visual acuity on presentation was 6/36 right eye, counting fingers at 1 m left eye. Examination of the left eye revealed a central circular corneal stromal abscess measuring 4 mm × 4 mm with an overlying epithelial defect (Fig. 1). There was evidence of mild blepharitis in either eye. The right cornea was clear and examination of the fundus revealed extensive myopic chorioretinal degeneration. The abscess was scraped and the patient commenced on intensive topical gentamicin (1.5%), cefuroxime (5%) and cyclopentolate (1%). The corneal scrape showed a profuse growth of *Streptococcus pneumoniae* sensitive to cefuroxime and the treatment was modified accordingly. He was also treated for his blepharitis. The abscess resolved on intensive topical treatment leaving a central corneal scar (Fig. 2). The visual acuity in the left eye 4 months after presentation was counting fingers at 1 m with a refraction of -13.00 D.

Discussion

Photorefractive keratectomy (PRK) with the excimer laser

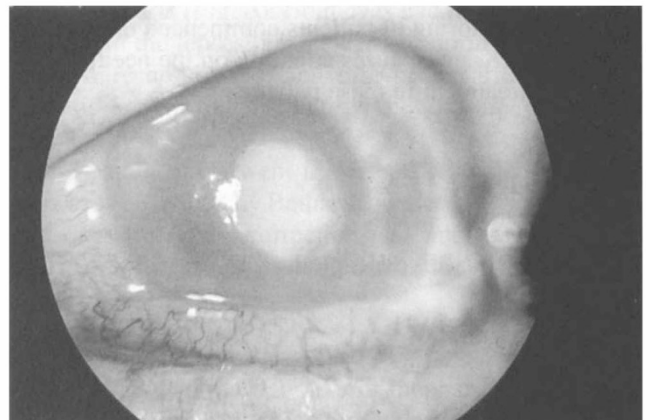


Fig. 1. Left eye at presentation, showing the central corneal abscess.

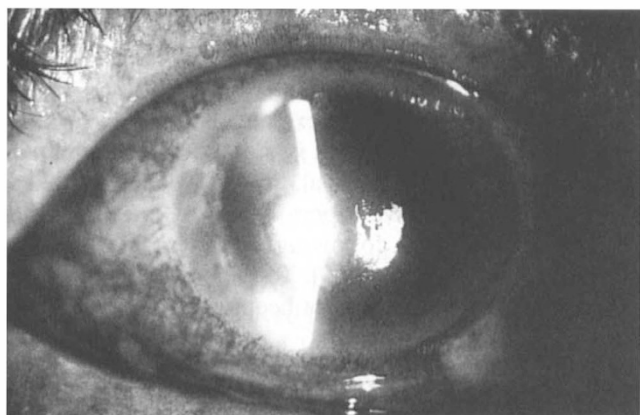


Fig. 2. Left eye after a week of intensive treatment, showing the abscess resolving.

has now become a recognised form of treatment for myopia. Its use on fully sighted human eyes was preceded by trials on animal models, blind and partially sighted human eyes.

A number of studies on corneal epithelial changes following PRK have shown no significant long-term deleterious effects.¹⁻⁴ The majority of clinical trials have incorporated the use of a topical steroid regimen following the PRK and some studies have suggested that regression of correction and corneal haze can be controlled by titration of the steroid dose.⁵⁻⁷

None of the reports to date has attributed any significant complication to the use of steroid following PRK.⁸⁻¹¹ The use of post-operative steroids to modulate wound healing remains a controversial subject. Piebenga *et al.*¹⁰ in their trial found no statistically significant role for steroids. Gartry *et al.*¹² in their trial found better results in the steroid group at an early stage though the advantages were lost at 3 and 6 month follow-up. They have suggested that long-term steroid usage would be unacceptable given the risks and the lack of benefits.

Blepharitis is usually associated with peripheral rather than central corneal lesions.¹³ We attribute the bacterial keratitis seen in our patient to a combination of factors including pre-existing blepharitis, possible ocular surface abnormality following the excimer laser treatment and long-term steroid usage. This case demonstrates the need for closer monitoring of patients commenced on steroids following PRK and focuses attention on the need, if any, for steroid treatment in these patients.

R. Sampath
A. E. A. Ridgway
B. Leatherbarrow

Manchester Royal Eye Hospital
Oxford Road
Manchester M13 9WH
UK

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Sir,

Blepharophimosis Syndrome: An Atypical Case

Blepharophimosis was first reported in 1841 by von Ammon.¹ Blepharophimosis syndrome, which was subsequently described by Spaeth in 1956,² is characterised by a narrowed horizontal palpebral aperture, ptosis, telecanthus and epicanthus inversus. Several other associations of blepharophimosis syndrome have been described involving mainly the lacrimal drainage system, the lids and certain systemic features.^{3,4} We describe here a case with features of blepharophimosis syndrome together with several other unique associations not reported previously in the ophthalmic literature.

Case Report

A 20-year-old man presented with bilateral ptosis. He gave no history suggestive of birth trauma or mental retardation. There was no history of consanguinity and academically he was of average intelligence from his records. The ptosis had been present since birth with no previous history of any surgery. There was no family history of a similar illness.

On physical examination the patient was a tall, thin individual with clinical features and anthropometric measurements suggestive of arachnodactyly. He had low-set ears with a normally arched palate. Radiological survey of the long bone confirmed the arachnodactyly. However, neurological and cardiovascular examinations revealed no other abnormality.