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Sir,

An unusual case of tuberculous dacryocystitis

Dacryocystitis is usually a result of primary acquired nasolacrimal duct obstruction[1,2] where chronic inflammation results in fibrosis, stenosis, and ultimately complete obstruction of the nasolacrimal duct. The inflamed lacrimal mucosa has increased numbers of mucin producing goblet cells and together with tear stagnation there is bacterial overgrowth and subsequent dacryocystitis.

We describe an unusual case of tuberculous (TB) dacryocystitis, a rare secondary cause of nasolacrimal duct obstruction,[3,4] diagnosed with the aid of out-patient nasal endoscopy.

Case report

A 36-year-old homeless male Somalian refugee had a 3-month history of chronic dacryocystitis with epiphora. The swelling burst and discharged spontaneously though a fistula. Nasal endoscopy performed in the Lacrimal Clinic by the ophthalmologist showed inflamed right nasal mucosa and he was referred to the otolaryngologists for their specialist opinion. He had an external dacryocystorhinostomy (Ext-DCR) with insertion of tubes, which were removed after 3 months, at which time the fistula had spontaneously healed but there was some residual epiphora. After 11 months, he reattended with recurrent chronic dacryocystitis and a second Ext-DCR was performed. He had failed to attend the otolaryngology clinic, as being homeless he did not receive the appropriate correspondence for this and he had also failed to attend the Lacrimal Clinic for removal of tubes as planned.

At 5 months after the second DCR, out-patient nasal endoscopy showed persistently inflamed and thickened nasal mucosa (Figure 1). The ophthalmologist performed an out-patient endoscopic biopsy of his nasal mucosa under topical anaesthesia. Histopathological analysis was equivocal for sarcoidosis and Wegener's granulomatosis. Ziehl–Neelsen stain for acid-fast bacilli was negative.

Following several months of repeated nonattendances, he returned with acute dacryocystitis with associated preseptal cellulitis. Following a course of oral antibiotics, an extensive exploratory (third) Ext-DCR was performed. Abnormal gelatinous tapioca-like tissue filling the ostium was curetted out and sent for histopathological analysis, alongside specimens of the lacrimal sac. This showed multinucleate Langhan giant cells and chronic caseating

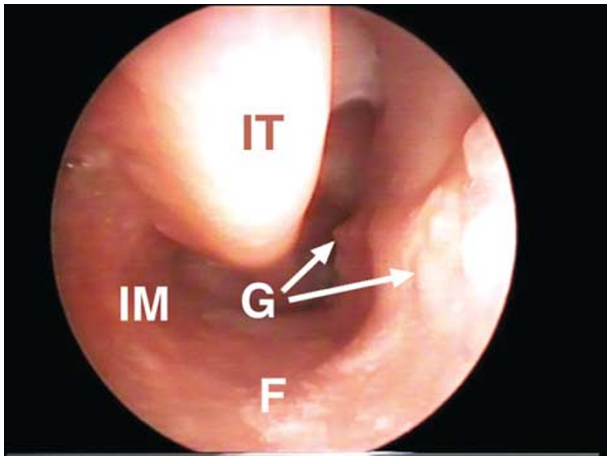

Figure 1 Endonasal photograph of right nasal space showing chronic granulomatous (lumpy) inflammation of the nasal septum. IM = inferior meatus, IT = inferior turbinate, F = floor, G = granuloma.

Table 1 Secondary acquired lacrimal drainage obstruction.

Aetiology	*Condition*
Infections	Bacterial — actinomyces, Chlamydia, tuberculosis Viral — herpes simplex, herpes zoster Fungal — aspergillus, candida Parasitic
Inflammations	Endogenous — Wegener's, sarcoidosis, cicatricial pemphigoid, Stevens-Johnson syndrome Exogenous — eyedrops, radiation, fluorouracil, allergy, burns, pyogenic granuloma
Neoplasia	Primary — papilloma, squamous cell carcinoma, lymphoma, haemangiopericytoma Secondary — adenocystic carcinoma, basal cell carcinoma, leukaemia, lymphoma, squamous cell carcinoma Metastatic — breast carcinoma, melanoma, prostatic carcinoma
Trauma	Medical therapy — iatrogenic, punctal plugs, probing, silicone intubation, sinus surgery, nasal surgery Accidental trauma — soft tissue laceration, bony duct fracture
Mechanical	Internal — dacryolith, migrated or retained medical device (eg punctal plug) External — 'kissing puncta', conjunctivochalasis, frontal/ethmoidal mucocoele

granuloma with associated acid-fast bacilli. Subsequent cultures of out-patient endoscopically biopsied nasal mucosa confirmed Mycobacterium tuberculosis.

This patient was otherwise well, with no history of pulmonary or systemic disease. He had a history of contact with a friend with pulmonary TB 1 year prior to his initial presentation. Chest radiograph was normal. He was commenced on a 6-month course of systemic antituberculous medication: 2-month course of rifampicin, isoniazid, pyrazinamide, ethambutol, and pyridoxine followed by a further 4 months course of isoniazid, rifampicin, and pyridoxine. There has been complete resolution of the right medial canthal swelling and nasal mucosa inflammation over 1 year after final diagnosis.

Comment

Secondary causes of dacryocystitis should be considered (Table 1)[5] such as lacrimal sac tumours and granulomatous disease (Wegener's granulomatosis, sarcoidosis and tuberculosis) especially in young patients, particularly when there is recurrent dacryocystitis despite lacrimal drainage surgery. In this country, TB infection should be borne in mind in high-risk populations, such as homeless refugees from endemic TB countries.

Out-patient rigid nasal endoscopy is a useful adjunctive tool in the assessment of patients with lacrimal disease and can be performed by appropriately trained ophthalmologists. In this patient, two ophthalmology-led endonasal biopsies were done, the first for histopathology and the second for microbiology that helped diagnose the infection.

There has been a resurgence in systemic TB over the past two decades. Worldwide there are approximately 8 million new cases per year.[6] It is predominantly a disease of poverty. In developed countries, there is a significantly higher prevalence in homeless and migrant populations.[7] Ocular TB accounts for 1% of all TB cases with choroiditis the commonest form. Half the cases of ocular TB will show TB changes on chest radiographs[8] indicating previous lung infection. However, this is not always clinically symptomatic. Primary nasal tuberculosis is also rare, with less than 50 reported cases in the literature.[9] To the best of our knowledge, only a couple of cases of TB dacryocystitis have been reported.[3,4] Our patient was commenced on conventional anti-TB treatment based on the World Health Organization guidelines,[10] which is rapidly effective in the absence of multidrug resistance.

This case demonstrates the importance of having a high index of suspicion for TB as a cause of dacryocystitis in young patients, especially in high-risk groups such as homeless and migrant populations. It also illustrates the value of out-patient nasal endoscopy, which can be performed by a lacrimal ophthalmologist as part of a complete lacrimal assessment, to identify abnormal mucosa and to perform biopsies and should be an essential part of their armamentarium.

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Sir,

Simultaneous central retinal vein and retinal artery branch occlusions in two patients with homocystinaemia

Introduction

Retinal vascular diseases occur infrequently in young patients. More than 90% of cases occur in people older than the age of 50 years and as many as 70% of patients have arterial hypertension, cardiovascular atherosclerotic disease, or diabetes mellitus.[1–2] Simultaneous occlusion of central retinal vein and artery is much rare in young adults, and information regarding risk factors in this group is scant.[1–5]

Elevated plasma homocysteine is a recently recognized vascular risk factor for thrombosis and vascular diseases.[6–7] It is also shown to be a significant risk factor for retinal vascular occlusions.[7–11] Bilateral or unilateral central retinal vein, isolated retinal artery occlusions, and nonarteritic anterior ischaemic optic neuropathy have been previously reported in patients with homocysteinaemia.[8–11] Here we describe two young men with simultaneous occlusion of central retinal vein and branch of retinal artery associated with homocysteinaemia.

Case reports

Case 1

A 38-year-old male patient presented with sudden painless loss of vision of the right eye. Visual acuity was 20/60 OD and 20/20 OS. Anterior segment examination was unremarkable with normal pupillary reactions. Intraocular pressures were 14 and 16 mmHg OD and OS with applanation tonometry, respectively. Fundus examination revealed diffuse retinal haemorrhages, venous dilatation and tortuosity in all four quadrants, retinal oedema, and whitening in the inferior temporal arcuate in the right eye (Figure 1). Ophthalmologic examination was totally normal in the left eye. There was minimal delay in the filling of inferotemporal artery and minimally increased arteriovenous time and blocked fluorescence by retinal haemorrhages in fluorescein angiography (FA) OD (Figure 2). There was a superior temporal arcuate scotoma in visual field examination.

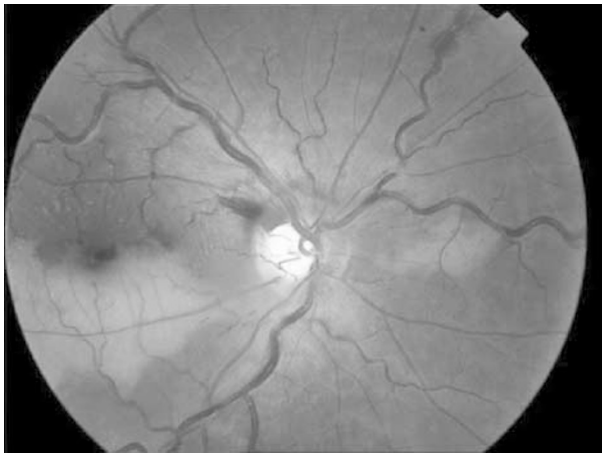

Figure 1 Fundus examination revealed diffuse retinal haemorrhages, venous dilatation and tortuosity in all four quadrants, retinal oedema, and whitening in the inferior temporal arcuate in the right eye.