Sir,

Primary localised conjunctival amyloidosis presenting as subconjunctival haemorrhage

Conjunctival amyloidosis can be one of the rare causes of spontaneous subconjunctival haemorrhage. We report one such case that presented to our eye department.

Case report

An 84-year-old healthy man presented to us in the eye casualty with sudden onset of extensive, spontaneous and painless subconjunctival haemorrhage in the left eye. He was also noted to have slight disc asymmetry and was thus brought back to regular clinic 1 month later for glaucoma assessment. As the haemorrhage began to clear up on the second visit, we were able to notice a painless subconjunctival nodule within the superior temporal bulbar conjunctiva. The lump was firm and mobile with respect to underlying scleral tissue. On further questioning he denied any history of trauma or any prior eye disease. He was booked for diagnostic biopsy to establish a diagnosis.

Histological examination showed extensive localised amorphous amyloid deposits encapsulating surrounding capillaries (Figs. 1, 2). There were no signs of lymphoma. In view of this he was referred to haematologists and gastroenterologists for systemic investigation. His blood film, serum electrophoresis, bone marrow biopsy and rectal biopsy were all unremarkable.

Comment

Amyloidosis has been regarded as a marker for either localised chronic inflammation or systemic alteration to the immune system. However, for localised conjunctival amyloidosis, direct evidence for both causes has been lacking.[1] In virtually all case reports found in the literature, conjunctival amyloidosis appeared as an isolated local phenomenon without previous history of ocular trauma, inflammation or malignancy. One notable exception was the case reported by Marsh *et al.*[2] in which a 62-year-old man developed scapular focal lymphoma 1 year after presenting with asymptomatic conjunctival amyloidosis. Immunostaining showed that in both lesions the amyloid deposits were of identical polyclonal immunoglobulin (AL) subtype.

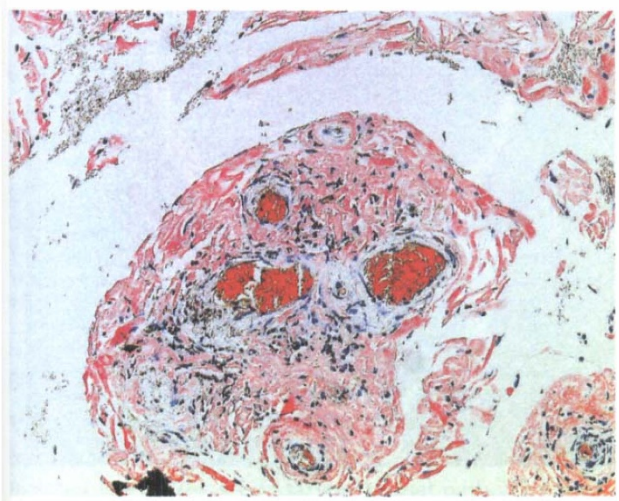

Fig. 1. *Cross-section (×10) of an amyloid nodule stained with Congo Red.*

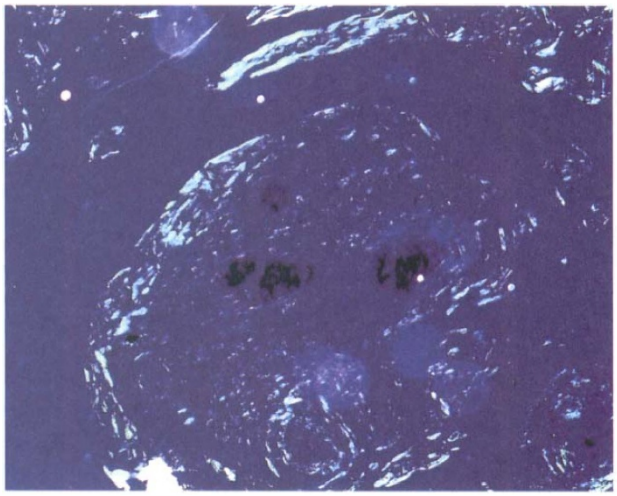

Fig. 2. *Identical cross-section under polarised light. The presence of amyloidosis is confirmed by the apple-green hue due to the birefringent property of amyloid.*

We are not sure whether AL amyloid has any predictive value for systemic involvement, as most case reports do not include immunostaining. In those that do,[2–4] only mixed polyclonal kappa lambda IgG, IgA and monoclonal IgD-lambda subtypes have been reported in the literature.

Clinically, patients usually present either with subconjunctival haemorrhage, as amyloid nodules cause local conjunctival capillaries to be friable, or with blepharoptosis due to mechanical effect. The lesion is usually described as a pink, painless nodule that can arise from bulbar, palpebral or tarsal conjunctiva. As it is impossible to differentiate clinically between localised amyloidosis and neoplastic growth such as lymphoma, it is mandatory to perform a diagnostic biopsy to obtain a definitive diagnosis. A systemic health check is also vital, though in most cases this will turn out to be negative. There may be an argument for repeat systemic review by a primary health care physician if initial screening is negative, as localised amyloidosis may precede systemic lymphoma. However, because of the rarity of these cases, it is difficult to study the natural history of occurrence of malignancy after initial primary conjunctival amyloidosis.

References

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Sir,

Sphenoidal mucopyelocele presenting as optic neuropathy

Sinus infection and adjacent spread to orbital and allied structures may lead to blindness.[1–3] Isolated sphenoid sinus mucocele is a rare entity, only a few cases being reported in the ophthalmic literature. We report a case of sphenoidal mucopyelocele encroaching intraorbitally and unilaterally compressing an optic nerve resulting in optic neuropathy and unilateral blindness.

Case report

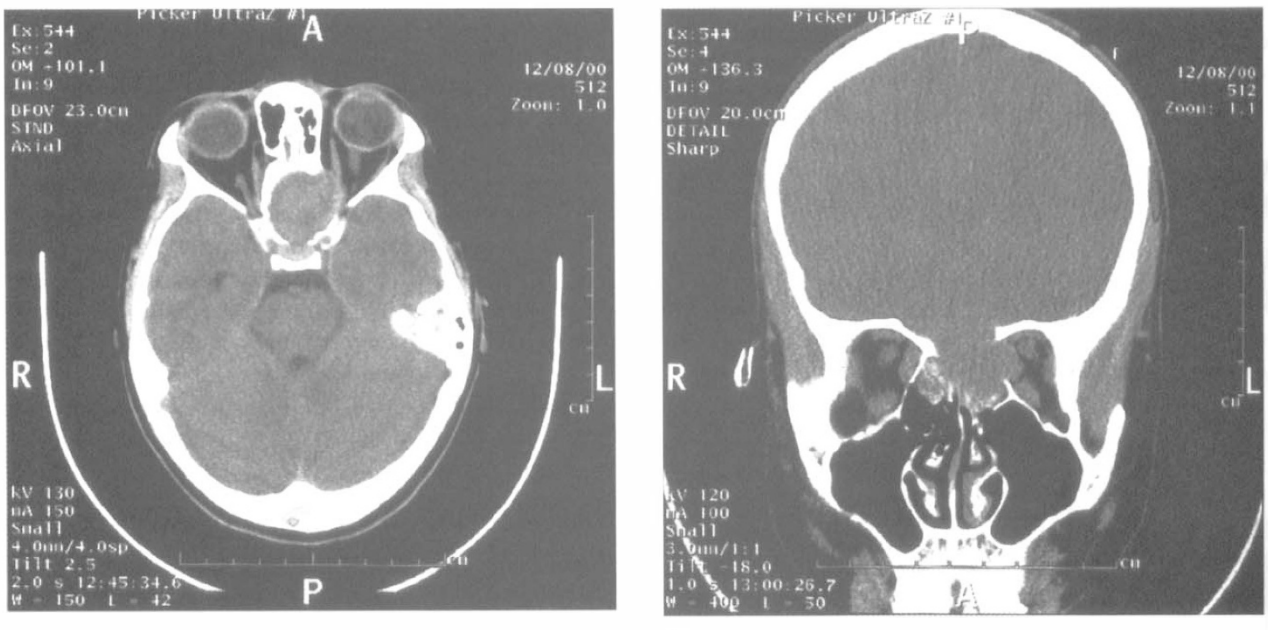
A 13-year-old girl was referred to the eye casualty by her GP complaining of poor vision in the left eye over 2 weeks with sudden worsening over 1 day. She complained of associated frontal headache, which had been present for 2 weeks. She had no other neurological complaints. On examination her visual acuity was 6/6 in the right eye and no perception of light in the left eye. She had an afferent pupillary defect on the left side. Fundus examination revealed a moderately oedematous disc in the affected eye. There was no other ocular abnormality in that eye. The right eye examination was normal. The presumptive diagnosis was of a demyelinating disease. MRI scan of the brain and orbit was arranged for the following day. Overnight her mother reported that she had a temperature of 37.2 °C and had vomited.

The MRI scan was of poor quality due to the presence of fixed braces on her teeth, but no abnormality was reported. Her full blood count, ESR and C-reactive protein were all normal. She was admitted to the paediatric unit for further investigations. A lumbar puncture was performed. Electrophoresis of cerebrospinal fluid did not detect any oligoclonal bands, but the alpha-2 region was raised which can suggest acute phase protein increase caused by infection. Further assessment of the MRI scans raised concerns about the possibility of a mass around the sphenoid region. A subsequent CT scan revealed a soft tissue mass arising from the posterior ethmoidal area and involving the sphenoidal sinuses. It was extending below to the superior antral margin. There was bony destruction, particularly of the medial left posterior orbital wall (Fig. 1a). The mass was displacing the left optic nerve (Fig. 1b). It was thought to be an invasive adenocarcinoma and a biopsy was planned.

Endonasal transsphenoidal biopsy resulted in the drainage of about 30 ml of pus from a large sphenoidal mucocele. Pus aspirated from the abscess and the blood culture grew *Staphylococcus aureus*. The patient was treated with intravenous ceftrioxone, oral metronidazole and dexamethasone. Her headache and fever resolved. The visual acuity in her left eye has not improved beyond inaccurate light projection, 1 month after initial presentation.

Comment

Sphenoidal sinusitis and abscess formation is rare.[3,4] Close proximity to the vital structures and slender bony structure often leads to serious complications.[1,2,5] Optic



(a) (b)

Fig. 1. *CT scans showing (a) bony destruction, particularly of the medial left posterior orbital wall, and (b) displacement of the optic nerve by the mass.*