instrument is used in phacoemulsification for lens manipulation. Some of these instruments are designed at the tip with blunt bulbous head and narrow neck (Figure 1). The bulbous head can break away at the neck.

The fragments might not easily be located during surgery. Immediate postoperative X-ray and CT scan might not be helpful to find the fragments.[5]

The fragments are often seen on iris during postoperative examination. One study reported postoperative metallic fragment on iris. This study postulated that the fragment was missed during immediate postoperative examination because of its original location within the angle, and the iris movement spontaneously revealed it after a while.[6] However, in our case, the metallic fragment was detected in the angle as gonioscopy was performed in early postoperative period.

Some metallic fragments may cause intraocular reaction and could masquerade as chronic postoperative inflammation.[6] The nonmagnetic metallic fragment in our case was removed to prevent any such occurrence. Surgical approach for removal of the fragment depends not only on magnetic nature and location of the fragment but also on the presence of natural lens in the eye. Intraocular magnets can be helpful for removing the fragment from anterior chamber.[7] Removal of the fragment with forceps could be counterproductive in the presence of natural lens. In these cases, a different approach to remove the fragment from the angle, for example, using a magnet under a trabeculectomy-type flap can prevent lens damage. However, in our case, we felt appropriate to remove the nonmagnetic fragment using the forceps, as the eye was pseudophakic. As per our knowledge, this is the first case reporting the visualisation and removal of the metallic fragment from the angle in post-phacoemulsification patients using gonioscope. Gonioscopy is an invaluable tool in such cases.

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Sir,

Unilateral amiodarone keratopathy: occlusive contact lens spares development in the contralateral eye

Amiodarone, a diiodinated benzofuran derivative, is used to treat patients with atrial and ventricular arrhythmias and angina pectoris.[1,2] Its use has been associated with numerous side effects including pulmonary fibrosis, thyroid dysfunction, gastrointestinal problems, neuropathy, dermatopathy, and ocular effects.[1,3–5] Ocular changes caused by amiodarone may involve the lens, the retina, the optic nerve, and more commonly the cornea.[3,5–7] Amiodarone keratopathy (AK) has a prevalence of 70–100%, but only 10% of patients experience visual disturbances.[6,7] AK is typically bilateral.[3,6,8] We report an unusual case of unilateral AK in a patient using an occlusive contact lens in the contralateral eye.

Case report

A 67-year-old male patient who had been using an occlusive contact lens (Optifree Xpress) for 5 years was reviewed to evaluate the status of the cornea. The occlusive contact lens had been prescribed for the left eye to prevent troublesome diplopia, which could not be

controlled with prisms (Figure 1a). He had a past ocular history of thyroid eye disease treated with systemic corticosteroids, orbital radiotherapy, and adjustable suture squint surgery. He had paroxysmal atrial fibrillation (AF), which had been well controlled for the past 2 years with amiodarone 400 mg/day.

On examination, the visual acuity was 6/5 unaided in both eyes. There were greyish brown corneal epithelial opacities in a verticillate, whorl-like pattern occupying the right inferior cornea and extending into the visual axis, a picture consistent with amiodarone keratopathy (Figure 1B). The left cornea was clear (Figure 1C). Visually the patient was asymptomatic and he was advised to continue with his CL use.

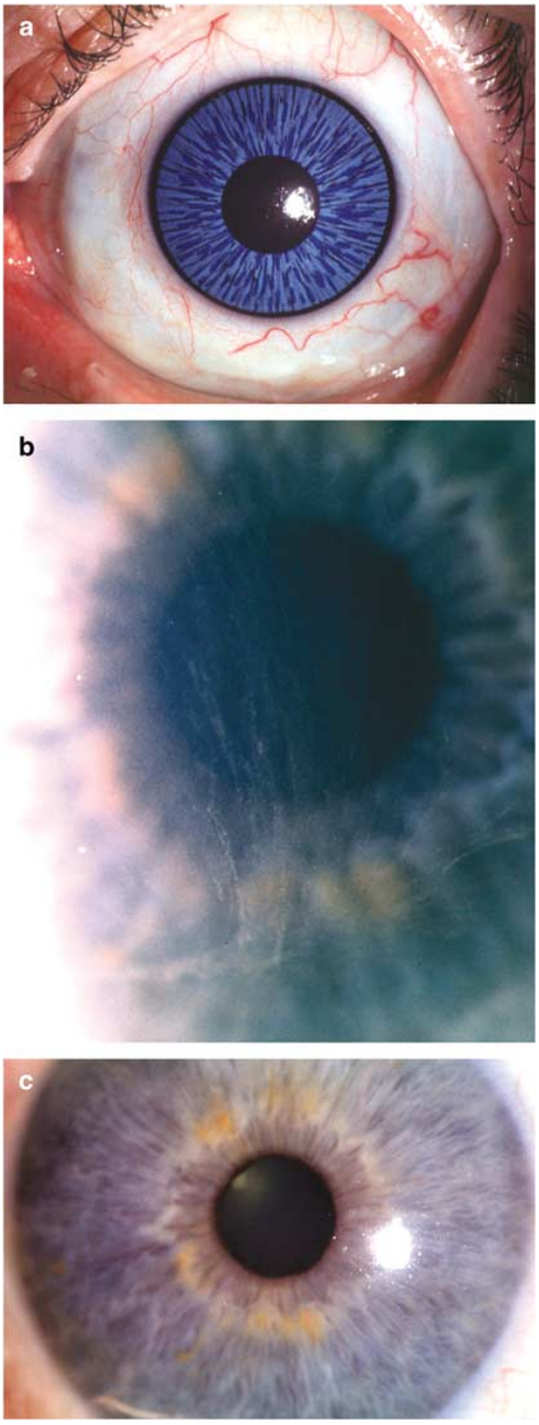

Figure 1 (a) Occlusive contact lens *in situ* in left eye. (b) Amiodarone keratopathy in the right eye: the verticillate, whorl-like greyish golden brown epithelial deposits are seen extending into the visual axis. (c) Photograph of left healthy cornea with no evidence of amiodarone keratopathy.

Comment

Amiodarone keratopathy was classified by Orlando *et al*[6] in 1984 into four grades: grade 1 describes fine greyish golden-brown opacities in the epithelium at the inferior pupillary margin; grade 2 is characterized by a more linear pattern extending towards the limbus; grade 3 is characterized by extension of the lesion into a verticillate, whorl-like pattern that may involve the visual axis; grade 4 describes additional 'clumps' of golden-brown deposits. These four grades represent an orderly progression and appear to directly correlate with dosage and duration of amiodarone therapy.[6,9]

Histologically, these deposits represent intracytoplasmic lysosomal-like inclusions of membranous lamellar bodies within the basal epithelial cells.[7] Some investigators believe that these inclusions represent lipofuscin, others that they are drug–lipid complexes.[7,9] More recently, *in vivo* confocal microscopy has shown that amiodarone keratopathy may involve deeper corneal layers including the stroma and endothelium.[10]

AK usually appears simultaneously in both eyes.[3,6,8] It is unlikely that the unilaterality of our patient's keratopathy was a result of early asymmetry as he had been on a moderate dose of amiodarone for 2 years. Patients on amiodarone are known to develop photosensitivity and cutaneous pigmentation.[1,4] We propose that the occlusive contact lens and the resultant lack of exposure to ultraviolet light prevented the keratopathy in the contralateral eye. In a previous case series, asymmetrical AK was reported in a patient with unilateral ptosis.[4] Ultraviolet radiation may produce a phototoxic reaction which promotes the binding of the drug or its metabolites to the corneal tissue. Protective measures such as the use of sunhats and sunglasses may prevent the development of AK.

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Sir,

Successful retrieval of internal limiting membrane specimens

Internal limiting membrane (ILM) peel is undertaken during pars plana vitrectomy for diabetic macular oedema,[1,2] as an adjuvant to epiretinal membrane peel[3,4] and in macular hole surgery.[5,6] There is some controversy concerning the benefits of the procedure, and histological investigations are often required in the course of attempts to establish the usefulness of ILM peel. For example, histopathological assessment of the tissue removed is important to ascertain surgical cleavage planes and the presence or absence of neural tissue on the retinal side of the peeled ILM, as well as to confirm the nature of the excised tissue.

It is notoriously difficult to retrieve ILM tissue specimens for histology because of their small size and transparent character. These features render the tissue easily lost between removal from the eye and embedding within a histological medium such as wax.[7,8] Many methods have been employed to improve the recovery rate of these tiny specimens, including retrieval into small volumes of fixative, the application of tiny amounts of ink or dye to the specimen-containing fluid (in order to stain and hence visualise the ILM) and 'sandwiching' the specimen in folded paper.[7,8]

We have recently adopted two further modifications to these methods that we have found has increased our rate of successful retrieval of ILM specimens to approaching 100% of excised ILM specimens. The first modification involves placing the specimen on a 1×1 cm wet instrument gauze (BD Visiwipe, USA) directly from the retinal forceps that were used to peel the ILM. The microporous nature of the wet instrument gauze tends to 'suck' the specimen to it's surface, thereby keeping it secure and flat as can be seen in the case of ILM removed with the aid of Indocyanine Green (ICG) (Figure 1a and b). Then the gauze with attached specimen is transferred to a specimen bottle containing 20 ml of 10% formalin. It is important to transfer the specimen to the specimen bottle containing formalin quickly as the microporous nature of tissue gauze tends to withdraw water from the specimen and could make it brittle.

The second modification is conducted in the laboratory. Even when such intra-operative dyes as ICG or Trypan blue have been employed to remove the tissue, by the time the specimen reaches the laboratory it has usually regained its transparency. Therefore, in the laboratory, 1–2 drops of 1% alcian blue in 3% of acetic acid (1:10 diluted, pH 2.5) are added to the specimen bottle and left for 2 h to re-stain the specimen. Alcian blue is a group of polyvalent dyes that are water soluble. The blue colour is due to the presence of copper molecules and it stains mucopolysccharide of epithelial cells and connective tissue mucins, although it will stain every tissue component over a larger period of time. The contents of the bottle are then poured in a boat dish and the now intensely blue stained specimen is easily retrieved to a tissue wrap and processed further for light or electron microscopy (Figure 1b).

In our experience, the histology of the peeled ILM is unaltered by these modifications to their retrieval