

Sir,
Corneal adherent leukoma associated with measles

I read with interest the recently published article by Köksal *et al*,¹ reporting adherent leukoma associated with measles in two patients in Turkey. They rightly pointed out that these corneal changes are seen more commonly in developing and third world countries. However, in the modern and 'borderless' Europe, where there are a large number of immigrants and refugees, we are beginning to encounter these patients in this country as well. It is important to recognise the problems in these patients, and they present new clinical challenges to ophthalmologists in the United Kingdom (UK).

Recently, a Turkish refugee aged 51 years was referred by an optician for cataract assessment. He suffered from measles and malnutrition during his childhood in Turkey, but he denied any previous ocular history. He achieved a visual acuity of 6/18 and 6/24 in the left and right eyes, respectively. Anterior segment examinations revealed bilateral mild nuclear cataracts and inferior corneal opacities (leukoma), which were adherent to the underlying iris tissue and distorted pupils (Figure 1). The rest of the ocular examinations were unremarkable. The corneal changes appeared to be chronic, and detailed enquiries showed that he maintains a balanced diet since he came to UK 5 years ago.

The options of cataract management in this patient include cataract extraction and intraocular lens implantation alone, with or without corneal graft at a later date, or with penetrating keratoplasty (PK), a triple procedure, at the same time. Using trypan blue during

cataract operation in corneal opacities has some positive results; the dye improved visualisation of the anterior capsule and a complete capsulorrhexis could be performed successfully in all eyes in the study.² As for corneal graft, the evidence is less clear. Dandona *et al*³ reported adherent leukoma as an indication for PK in 7.5% of its cases in India, but it was unclear with regards to their visual outcome. Yorston *et al*⁴ reported a series of PK in Africa and 5% of the grafts being undertaken for corneal scarring caused by trachoma or measles. The visual outcome was worse in the corneal scarring group compared to the keratoconus group. They concluded that penetrating keratoplasty has a limited role in the treatment of blindness from corneal scarring due to trachoma, measles, and vitamin A deficiency for which community-based preventive measures must remain the priority. In this case, it is important to assess for other underlying pathologies like herpetic infection, malnutrition, and vitamin A deficiency, as these may affect the success rate of PK. As mentioned earlier, this is the kind of patients that UK ophthalmologists may encounter more often in the future, but, due to its rarity, they are probably best managed in centres with specialised corneal service.

References

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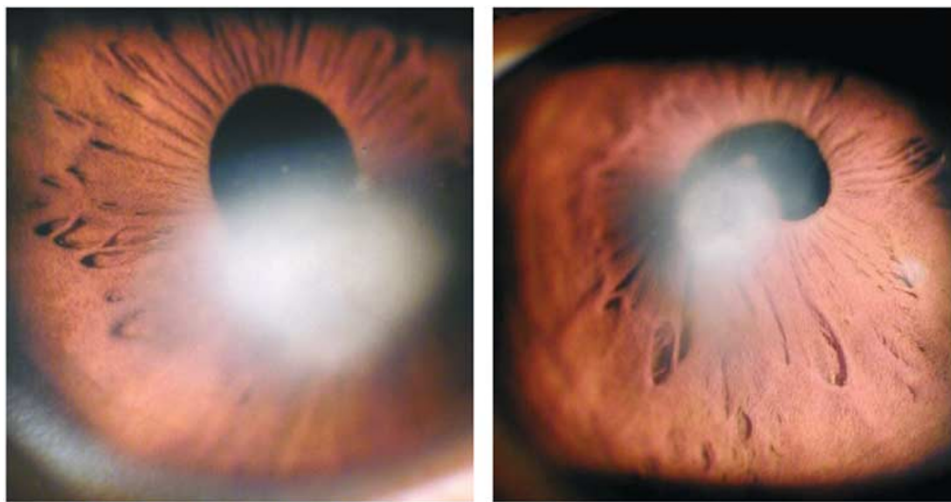


Figure 1 Corneal scar in the right eye (left figure) is larger than that in the left eye (right figure). Note the underlying iris tissues were dragged towards the corneal scars (adherent leukoma) with pupils being distorted.

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- 4 Yorston D, Wood M, Foster A. Penetrating keratoplasty in Africa: graft survival and visual outcome. *Br J Ophthalmol* 1996; **80**(10): 890–894.

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Sir,

In Turkey, measles epidemics are under control after extensive immunization programmes since the beginning of the 1980s. However, as Kwan pointed out, we still have older patients who may need cataract operations and there are still patients of all ages in third-world countries. As we share these patients in the modern, borderless Europe, we wish to share our experience also.

Keratitis is present in all patients with measles, however, only one-third of them have ocular symptoms. Measles virus is scattered throughout the whole cornea during the active period of the disease. Exposure also plays a role in the development of peripheral ulcers and adherent leucoma, particularly located at the 6 o'clock position in the presence of xerophthalmia, vitamin A deficiency, and superinfections.¹ Anterior segment reconstructions such as pupilloplasty, synechiotomy, and optical iridectomy are necessary during cataract operation.

Penetrating keratoplasty (PK) has a limited role in the treatment of blindness from corneal scarring due to keratomalasia, measles, and vitamin A deficiency.^{2,3} In the literature, glaucoma has never been reported in patients who underwent PK due to adherent leucoma caused by measles. According to our clinical experience, intraocular pressure must closely be watched in patients after PK. Secondary damage in the trabecular meshwork and peripheral anterior synechia related with measles may aggravate glaucoma after PK. Penetrating keratoplasty must be applied if the corneal scar in the central axis impedes vision significantly, and patients must be followed closely for glaucoma.

References

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Sir,

Progression of visual field defect in a normal-tension glaucoma patient after laser *in situ* keratomileusis

The complications of a laser *in situ* keratomileusis (LASIK) were reported (5.2%) to include the following: flap irregularities, free cap formation, diffuse lamellar keratitis, epithelial ingrowth, induced astigmatism, regression, and overcorrection.^{1,2} Progression of a visual field defect is also reported after LASIK.^{3–6} Here, I report a case of progression in a visual field defect after LASIK.

Case report

A 34-year-old man visited a local facility of a laser visual correction centre in February of 2001. Preoperative evaluation revealed that his best-corrected visual acuity was 20/12.5 in both eyes, with $-9.00 -0.75 \times 5$ in the right eye and $-8.50 -0.75 \times 180$ in the left. The corneal curvatures were 42.25/43.25 D in both eyes. The central corneal thickness was 577 μm and 578 μm in the right and left eye, respectively. The intraocular pressure measured by Goldmann applanation tonometry was 13 and 11 mmHg in the right and left eye, respectively. The vertical cup/disc ratio was 0.7 in both eyes. The