Comment

Massive subretinal haemorrhage is a serious complication of AMD. Systemic hypertension³ and the use of anticoagulants⁴ are known risk factors of subretinal haemorrhage. We describe a rare association between subretinal haemorrhage and ITP. This case indicates that close ophthalmologic examination is necessary for us to treat thrombocytopenic diseases like ITP.

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T Inoue, Y Yanagi, Y Tamaki, J Kami and Y Kato

Department of Ophthalmology
University of Tokyo School of Medicine
7-3-1 Hongo
Bunkyo-ku, Tokyo, Japan

Correspondence: Y Yanagi,
Tel: +81 3 5800 8660
Fax: +81 3 3817 0798
E-mail: yanagi-ty@umin.ac.jp

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Sir, Corneal endothelial transplantation using femtosecond laser technology

Penetrating keratoplasty has been the treatment of choice for eyes with corneal endothelial dysfunction such as pseudophakic bullous keratopathy, Fuch's corneal endothelial dystrophy, and congenital hereditary endothelial dystrophy. Since it is only the inner corneal layer which is defunct in these diseases, the idea has been to selectively transplant a deep corneal layer including Descemet's membrane and the corneal endothelium.^{1,2} It would markedly decrease

the amount of grafted allogenic tissue, and by leaving the surface of the cornea mostly untouched, it may decrease postoperative corneal astigmatism. Using new femtosecond laser technology,^{3,4} the purpose of the present study was to describe the possibility to nonmechanically create a deep corneal lamella containing Descemet's membrane for transplantation of corneal endothelium.⁵

Case report

The study included five freshly enucleated porcine eyes. Using a corneal contact lens and a femtosecond laser (20/10 Perfect Vision, Am Taubenfeld 21/1, D-69123 Heidelberg, Germany) with a wavelength of 1060 nm, a spot size of about 10 μ m, a pulse energy of less 10 μ J, and a laser pulse duration of several hundred femtoseconds, a deep corneal lamella was created. Thickness of the lamella was about 50–100 μ m. Diameter of the lamella on its endothelial side was 6 mm. In the periphery of the lamella in its stromal part, an overhanging circular ledge of 1 mm was created leading to a diameter of 8 mm of the lamella in its stromal part. The ledge fitted into a corresponding circular groove in the surrounding deep stroma of the recipient cornea. The overhanging ledge of the lamellar graft with the corresponding groove in the recipient cornea were formed to enhance the stability of the graft. In a second step, on top of the deep corneal lamella, a thick corneal flap with three positional spikes and a hinge was created. The positional spikes in the thick autologous corneal flap were formed to increase postoperative rotational stability of the flap and to decrease corneal astigmatism.^{5,6} The flap was opened, the deep corneal lamella with Descemet's membrane and corneal endothelium was removed and inserted into the bed of recipient eyes which had been prepared in the same way.

For all eyes included in the study, the deep thin corneal lamellae and the thick corneal flaps could be prepared without major difficulties. The deep corneal lamella containing corneal endothelium and Descemet's membrane with a thin adjacent layer of corneal stroma could easily be removed and repositioned into their original beds as well as into the recipient beds of other eyes in which the recipient beds were created in the same way. The time taken for the preparation of the corneal lamellae and the corneal flaps was less than 5 min in all cases.

Comment

In corneal surgery, femtosecond laser technology allows to create deep corneal lamellae containing Descemet's

membrane and corneal endothelium for nonmechanical preparation and transplantation of corneal endothelium. The positional spikes in the thick autologous corneal flap covering the thin deep corneal allograft may increase postoperative rotational stability of the flap, and in combination with the corneal surface remaining almost untouched may reduce postoperative corneal astigmatism as compared with penetrating keratoplasty. The decreased amount of grafted allogenic tissue in comparison to penetrating keratoplasty may decrease the rate of immunologic graft reactions. Femtosecond laser surgery of the cornea warrants further investigation for nonmechanical posterior lamellar keratoplasty for corneal endothelium transplantation.

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J B Jonas

Department of Ophthalmology, Faculty of Clinical Medicine Mannheim of the University Heidelberg, Germany

Correspondence: JB Jonas
Universitäts-Augenklinik
Theodor-Kutzer-Ufer 1-3
68167 Mannheim, Germany
Tel: +49-621-383-2242 or +49-621-383-2652
Fax: +49-621-383-3803
E-mail: Jost.Jonas@ma.augen.uni-heidelberg.de

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Sir, Wegener's granulomatosis of the orbit in a 5-year-old child

Wegener's granulomatosis (WG) is a rare disorder of unknown aetiology, characterised by a necrotising vasculitis and granulomatous infiltration of the respiratory and renal systems.¹ Ocular manifestations are reported to occur in up to 77% of patients and include conjunctivitis, episcleritis, peripheral ulcerative keratitis, scleritis, uveitis, choroiditis, and central retinal artery occlusion.^{2–6} Orbital involvement is seen in 18–22% of patients with WG.⁷ The disease typically manifests in the fourth and fifth decades, although its occurrence at ages ranging from 7 to 75 years has been reported.^{8–10}

We report the case of a 5-year-old girl presenting with unilateral upper-lid oedema, conjunctival injection, and restriction of eye movements, who was subsequently diagnosed as having WG. To our knowledge, this is the youngest reported case of WG in the literature.

Case report

A 5-year-old girl was referred to the Aristotle University eye clinic with a 4-week history of right-upper-lid swelling, ocular and facial pain, red eye, and probably some limitation of eye movements. As she also had a cold and a temperature of 38°C, she has been treated with topical and systemic antibiotics on the basis of presumed orbital cellulitis, but this did not improve her condition.

On examination, she was found to have right-upper-lid oedema, conjunctival injection, mild restriction of ocular movements, and a palpable hard mass on the upper temporal quadrant corresponding to the lacrimal gland site (Figure 1a). Her visual acuities were 6/6 in both eyes, and the remaining ocular examination, including fundoscopy through dilated pupils, was unremarkable. Paediatric evaluation also did not reveal anything apart from a mildly raised temperature of 37.5°C. She had no significant past ocular and medical history of note.

An MRI was ordered, which showed diffuse swelling in the right orbit at the lacrimal gland region with normal extraocular muscle and optic nerve imaging and no other abnormalities (Figure 2). Her chest X-ray, abdominal MRI, urine analysis, and blood tests were normal apart from a raised erythrocyte sedimentation rate (ESR) of 55 mm in the first hour, and a C-reactive protein (CRP) of 182 mg/l. An orbital biopsy was undertaken that showed mixed granulomatous and active inflammation, and focal areas of fat necrosis and disruption. There was mixed