

Figure 1 (a) Before YAG laser (b) after YAG laser.

without any shallowing of anterior chamber (Figure 1a). The vitreous had syneristic changes. Fundus examination was unremarkable.

A posterior Nd:YAG laser capsulotomy was carried out. The fluid interface and distorted posterior capsule disappeared immediately after the procedure (Figure 1b), with restoration of visual acuity to 6/6 unaided a week later. The AC depth measured on IOL master before and after the laser treatment was the same and there was no difference in the refractive status of the eye compared to her early postoperative finding.

Comment

Late postoperative CBS even though rare is well documented in the literature.^{5,6} The distension of posterior capsule, anterior chamber shallowing, unexpected myopic shift, and persistent uveitis are some of the presenting features. In our case, in contrast to the commonly reported earlier types, the structural changes in the anterior capsule with rigid fibrosis had prevented

the displacement of IOL. Hence, there was no change in the refractive status of the eye.

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Sir,
A case of sterile corneal perforation after bone marrow transplantation

We experienced a rare case of acute corneal perforation following sterile corneal ulcer in chronic graft-versus-host disease (cGVHD) after bone marrow transplantation. The patient was a 53-year-old Japanese man who underwent allogenic BMT because of non-Hodgkin’s lymphoma. Three years after BMT, a small corneal ulcer was developed at the paracentral region of the lower cornea, which progressed to sterile

corneal perforation just 4 days after that examination. Subsequent lamellar keratoplasty (LKP) was failed by corneal melting and subsequently penetrating keratoplasty (PKP) was performed.

Immunohistochemical study detected CD8-positive cells, but no CD4- and CD19-positive cells in both the lamellar graft and host corneal stroma, suggestive of immune reaction involving cGVHD. Sterile corneal perforation may be rare but should be noted as a severe complication after BMT. This case serves as a reminder that even the paracentral part of cornea might be target in BMT patients.

Case report

A 53-year-old Japanese man who had been diagnosed with non-Hodgkin's lymphoma in 1997 underwent human leucocyte antigen (HLA)-matched allogeneic bone marrow transplantation (BMT) in June 2002 at NTT hospital in Tokyo, Japan. A few months later, chronic skin graft-versus-host disease (cGVHD) was diagnosed. In January 2004, he experienced ocular irritation of both eyes attributable to bilateral sicca syndrome and was treated with topical hyaluronate sodium. On 24 May 2004, he had worsening of ocular irritation and further deterioration of vision in the right eye. Slit-lamp examination showed a small corneal ulcer at the paracentral region of the lower cornea, this was treated with topical antibiotics and hyaluronate sodium. After 4 days, corneal perforation occurred. He was transferred to our hospital on the same day. Visual acuity of the right eye was hand motion. A lower paracentral corneal perforation of 2.0 mm with corneal oedema was noted (Figure 1). There was no evidence of corneal infiltration or infection. Conjunctival smear was also negative. Corneal perforation was initially treated by bandage with therapeutic soft contact lens, topical antibiotics, and betamethasone. On 2 June 2004, lamellar keratoplasty (LKP) using preserved cornea was performed because the anterior chamber could not be formed. Because leakage from the wound and progressive stromal melting were observed 2 weeks after LKP (Figure 2a), penetrating keratoplasty (PKP) was performed using fresh cornea on 7 July 2004. Immunohistochemical study detected CD8-positive, but no CD4- and CD19-positive cells in both the lamellar graft and host stroma (Figure 2b). After PKP, corneal epithelial defect of the graft persisted for 4 months.

Comment

Among many ocular complications after BMT patients, sterile corneal perforation at the paracentral cornea is not usual.^{1,2} Tranos *et al*² demonstrated a case resembling our

present case, epitomizing similar perforation site. Although the exact mechanisms of perforation are uncertain, sequence of events that may lead to corneal

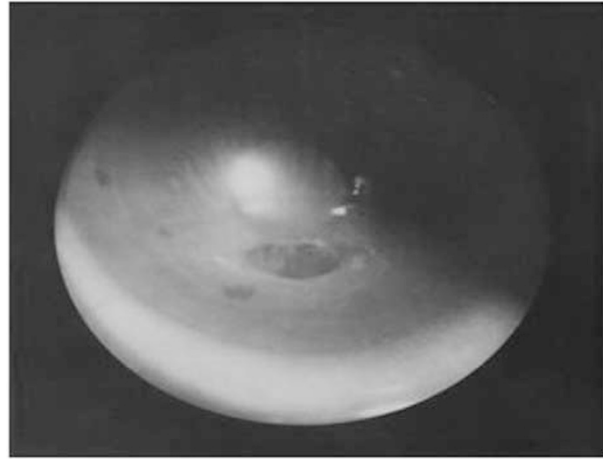


Figure 1 Photograph showing the paracentral corneal perforation plugged by iris.

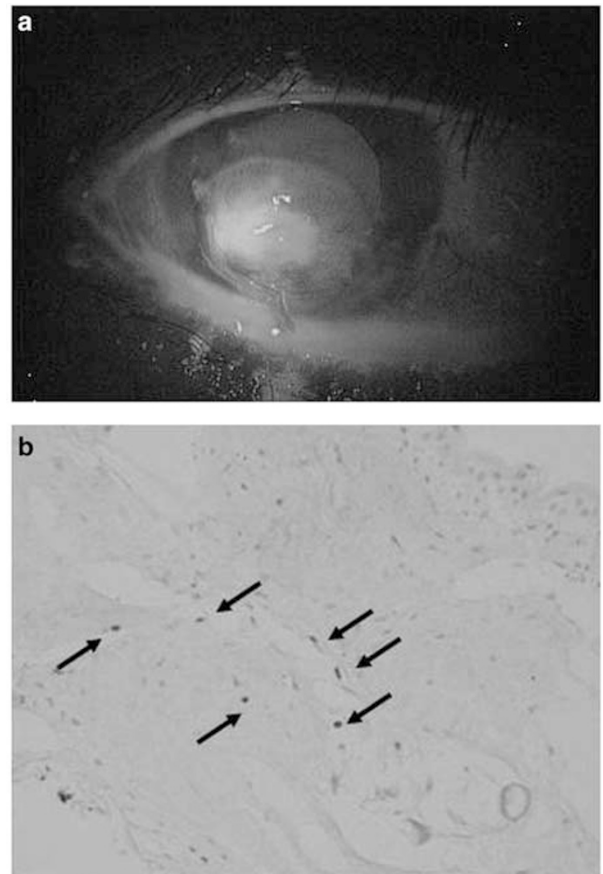


Figure 2 (a) Photograph displaying melting of graft and host cornea 2 weeks after LKP. Epithelial defect has persisted. (b) Immunohistochemistry demonstrates the existence of CD8 (+) T cells in both graft and host stroma.

ulcer have been proposed, implicating dry eyes owing to sicca syndrome as a complication of cGVHD. We also observed CD8-positive cells in both the LKP graft and host stroma, and no other types of lymphocytes. CD8-positive cells play a central role in the tissue injury of cGVHD.³ Our histological observations strongly suggest that stromal melting was not derived from allograft rejection but resulted from immunological cytotoxic reaction by CD8-positive cells, compatible with cGVHD pathology in addition to dry eye, because rejected corneas were invaded by a mixture of CD4-positive and CD8-positive T cell.⁴ This report is the first to demonstrate CD8-positive cell infiltration in corneal disorder after BMT patient.

Finally, sterile corneal ulceration may develop after BMT, leading rapidly to thinning and perforation. We emphasize that close cooperation between oncologist and ophthalmologist is needed to follow patients after BMT. Although the reasons why the pathological site is the paracentral region remains unknown, this case serves as a reminder that even the paracentral part of cornea can be target in BMT patients.

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Sir,
Does the scrub nurse matter?

Surgical interventions are increasing every year¹ with increasing pressures to reduce waiting times for surgery.² This has led to rising absenteeism and loss of job satisfaction among the nursing and medical profession.³

The operating team all have to interact at many levels for surgical procedures to run smoothly and achieve good outcomes.⁴ It is also recognised that all members of the team are important in the management of complications when they do occur.^{5,6} This study was designed to ascertain if the experience of one member of the team, the scrub nurse, had any influence on the short-term outcome of complicated cataract surgery.

In cataract surgery, the scrub nurse is of particular importance as she/he not only performs scrub nurse duties but also acts as first assistant.

Methods

A retrospective study was undertaken in a designated cataract theatre at a single-site, eye hospital from January 2001 to December 2003.

We included cataract operations complicated by a posterior capsule rupture with an anterior vitrectomy and cataract operations performed by consultant ophthalmologists.

We excluded operations with other complications and operations not performed by a consultant.

Posterior capsule rupture was used as an indicator of intraoperative complications as it is easily recordable, potentially sight threatening, and representative of intraoperative problems, that is, it cannot happen pre- or postoperatively.

The scrub nurses involved with each case and their experience in years were identified using the hospital database. All the nurses had gained their cataract experience in the same theatre. The patients who then underwent a secondary procedure during a different theatre session were then identified. A 'good' outcome was defined as a case that required only one operative procedure.

Results

One hundred complicated cases were identified. Fifty cases were dealt with by 'more experienced' nurses and 32 cases by 'less experienced' nurses. A 'more experienced' scrub nurse was defined (arbitrarily) as having ≥ 10 years of cataract surgery experience and a 'less experienced' scrub nurse, ≤ 7 years experience. This division was apparent after analysing the data as all the scrub nurses, except one, fell into these two categories.