What *is* this?

Test your knowledge with a real-life case. Should this cornea be transplanted?

Two corneas were recovered from a 53-year-old Caucasian male donor who died from esophageal cancer. Past medical history in addition to esophageal cancer was significant for hyperlipidemia and chemotherapy followed by radiation three weeks prior to death. The family reported no pertinent ocular history.

The cornea was clear with a endothelial cell count of 2613. Slit-lamp examination showed a clear cylindrical object emerging from the limbus of the right corneal scleral rim (Fig. 1 and 2). Penlight examination performed prior to excision was unremarkable.

The family was again asked if the donor had ever had glaucoma or any ocular surgery; they denied any eye disease or surgery. Careful biomicroscopic examination showed that the object was approximately 3-mm long, originated at Schwalbe's line, and there were no entry or exit holes anywhere in the donor rim.

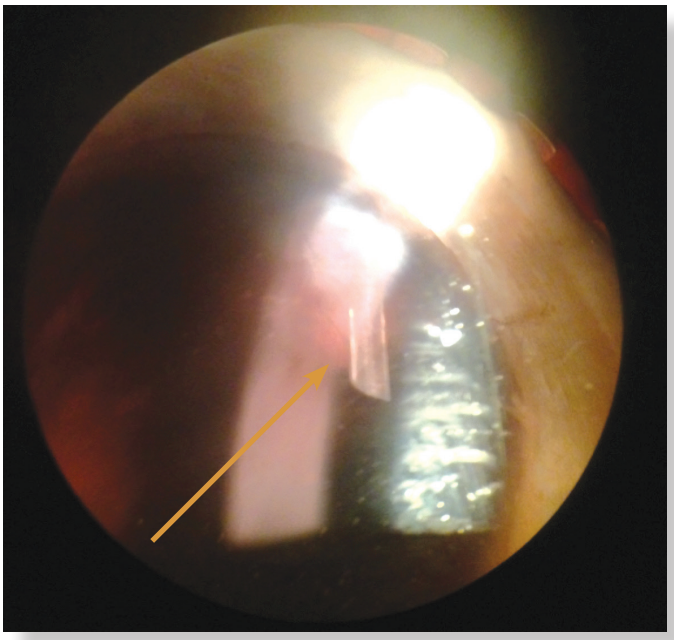

Fig. 1

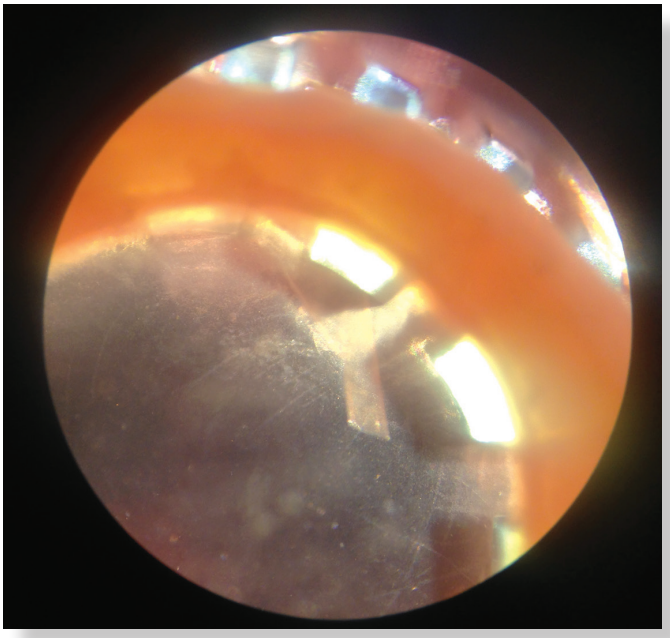

Fig. 2

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Answer:

The clear cylinder (Fig. 1 and 2) was a scroll of the Descemet membrane that resembled a glaucoma filter tube. With retroillumination, a segment of the Descemet membrane could be seen missing adjacent to the scroll where the Descemet membrane had been traumatically detached during procurement and coiled on itself (Fig. 3).

The cornea in question was discarded because the scroll encroached on an 8-mm clear zone; the normal mate was successfullly transplanted.

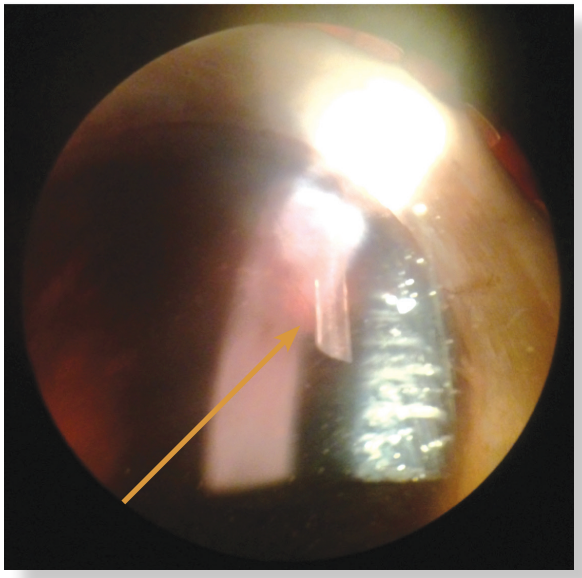

Fig. 1

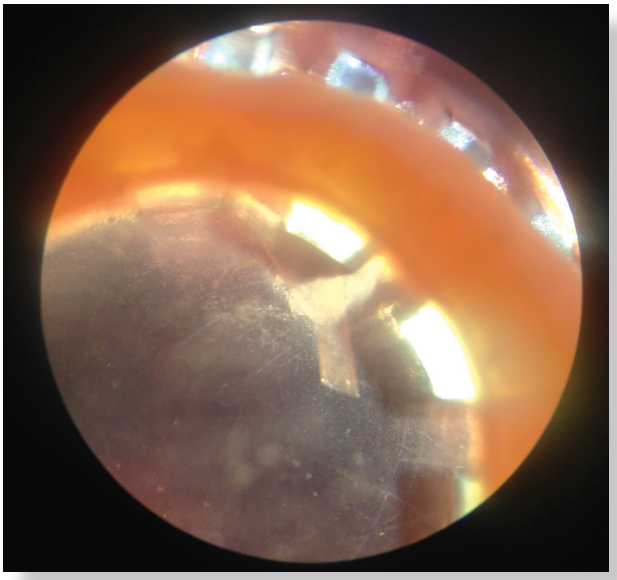

Fig. 2

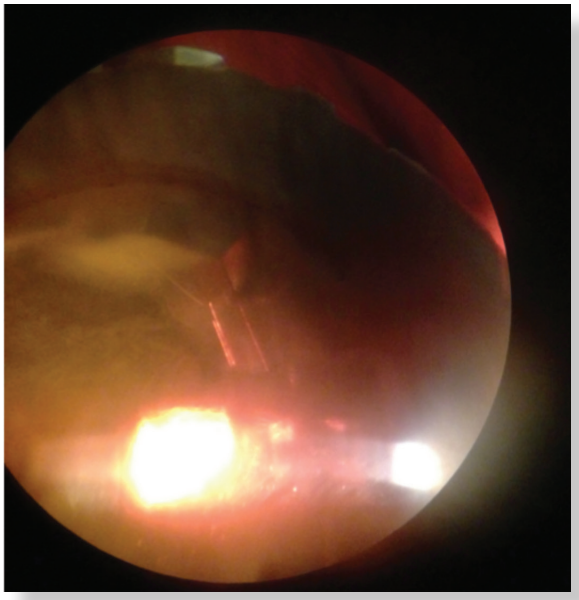

Fig. 3

KEYWORDS: donor cornea, corneoscleral rim, Descemet membrane, Descemet membrane detachment, Descemet membrane scroll

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The author states that he has no conflicts of interest to disclose.