

The upper fornix trap

RUDOLF H. BOCK

Palo Alto, California 94301, U.S.A.

A recent unusual incident made me decide to report two cases that illustrate the importance of a careful examination of the upper fornix in patients complaining of foreign bodies in the eye.

The first patient was a 38-year-old man who had been wearing contact lenses without any complications for over 8 years. The day before he came to see me, he had rubbed his left eye and suddenly discovered that his contact lens had disappeared. He was sure that it had not dropped out of the eye, but, on the other hand, he was unable to find it anywhere in the conjunctiva sac. He had persistent mild foreign body sensation which was still present the next morning. He went to the optometrist who had fitted him, and he in turn referred him to my office since he could not find the lens in the eye either. When I examined the patient, the left eye appeared perfectly calm and on extreme downward gaze with the upper lid elevated, there was no evidence of the lower border of the lens as one usually sees it. Nothing unusual could be palpated through the upper lid. Although I had decided that the patient must have pushed the lens out of the eye when he rubbed it, I was suspicious enough to put a drop on Pontocaine in the conjunctiva and evert the upper lid. Still no evidence of a foreign body. With the help of a flattened rounded glass rod, I swept up into the upper fornix and felt a hard resistance on the nasal side. In lifting the upper tarsal border with the glass rod, I could now see the lower border of the contact lens. To my surprise, the lens had lodged with its concave surface forward in the fornix (Fig. 1). Its lower border was firmly embedded in the soft tissue just above the upper tarsal border and had therefore remained out of view on downward gaze. The lens was easily removed from this trap with the glass rod. I assume that, had the lens been left in this unusual location, it might well have penetrated by pressure necrosis into the

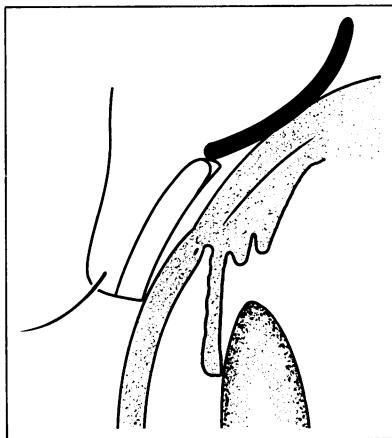


FIG. 1 *Inverted contact lens in upper fornix with its lower border wedged into upper tarsal edge*

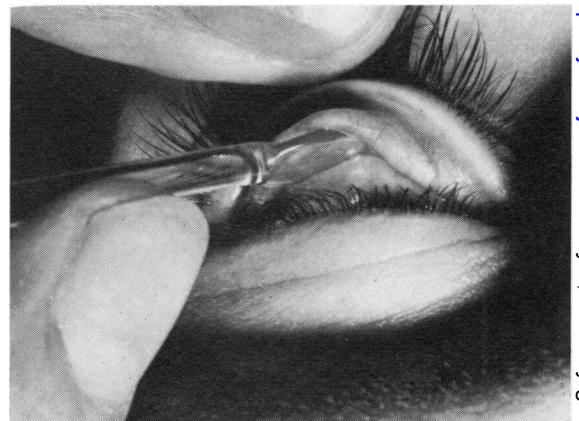


FIG. 2 *Upper fornix visualized by means of a flattened glass rod after eversion of the upper lid*

upper lid, an occurrence that has been reported in the literature (Green, 1963; Long, 1963; Michaels and Zugsmith, 1963).

The second case is that of a woman whom I saw over 15 years ago. She had been complaining to her ophthalmologist of a foreign body sensation in the right eye for over 2 months. It had started the day after she had cleaned a bird cage. No foreign body had ever been found and all medication had been without avail. The eye again showed no evidence of inflammation and no foreign body was found on double eversion of the upper lid. However, after instilling Pontocaine and lifting the upper border of the everted upper tarsus with a flat glass rod under good illumination (Finoff), I could see a millet seed hull lodged far up in the upper fornix.

These two cases show how important it is to examine the upper cul-de-sac when suspicion of foreign body exists. A flattened round glass rod lifting the upper border of the everted upper lid under good illumination is the most suitable way of doing this (Fig. 2).

References

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LONG, J. C. (1963) *Amer. J. Ophthal.*, **56**, 309
MICHAELS, D. D., and ZUGSMITH, G. S. (1963) *Ibid.*, **55**, 1057