

SHORT COMMUNICATION

Case report

Punctum to punctum adhesion after dacryocystorhinostomy using silicone tubes

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Adhesion between the upper and lower punctum is described after dacryocystorhinostomy with silicone stent intubation. The cause is attributed to trauma at the punctal openings and a tight silicone stent loop. Advice is given on how to avoid the complication. (Eur J Ophthalmol 2000; 10: 262-3)

KEY WORDS. *Dacryocystorhinostomy, Silicone stent intubation, Adhesion, Complications*

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Transpunctal adhesion is a rare complication of silicone stent intubation of the lacrimal canalicular system. A case is documented after dacryocystorhinostomy with silicone intubation.

Case report

An 80 year old man with persistent epiphora underwent a right dacryocystorhinostomy under general anaesthesia in 1999 for nasolacrimal blockage. His medical history included hypertension and reflux oesophagitis for which he used indoramin and omeprazole.

Corrected visual acuity was 6/9 in either eye. During dacryocystorhinostomy, silicone tubes were inserted using soft wire probes after dilation of the puncta. The distal ends of the silicone tubes were sutured to the mucosa of the alar wall of the nose to avoid their extrusion post-operatively.

On review 2 weeks later, it was noticed that the upper and lower puncta were adherent to each other in front of and around the silicone tube (Fig. 1). The tube was left in position for 2 months at which time both the adhesion and the tube were divided between the puncta by stretching the adhesion across the tip of a pair of pointed scissors. The tubes were recovered

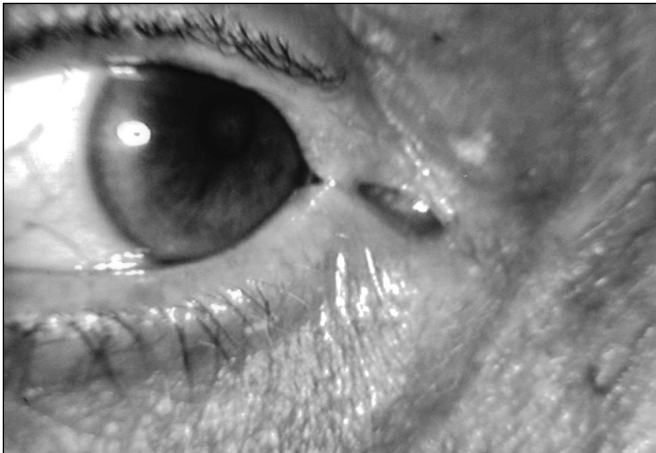


Fig. 1 - Transpunctal adhesion after dacryocystorhinostomy with silicone stent.

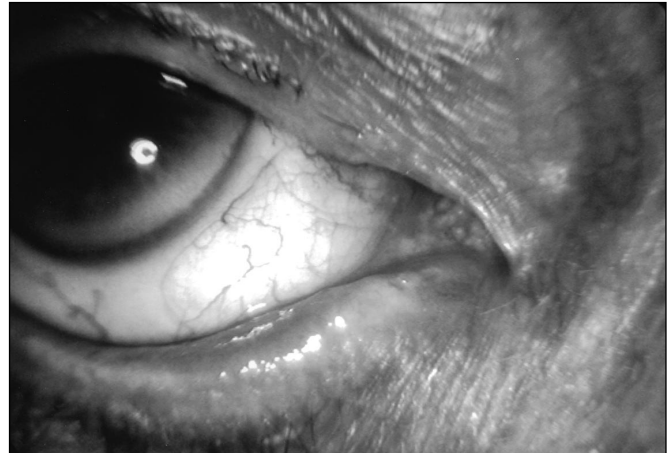


Fig. 2 - Double lower punctal orifices after division of adhesion and stent.

from the nose. Six months after surgery, a single superior and two inferior puncta had reformed without evidence of stenosis (Fig. 2). The patient was free from symptoms and requested DCR for his other eye.

DISCUSSION

Fibrosis between the puncta is an unusual complication of silicone stent intubation of the lacrimal system. This is only the second case seen by the author in 16 years.

Numerous complications have been reported from the use of silicone stents for nasolacrimal intubation. These include punctal stenosis, erosion and granulation, canalicular slitting, infection, corneal irritation and erosion, nasal irritation, epistaxis and extravasation or loss of the tubing (1-4).

Fibrous band formation between the puncta has been reported once before by Anderson (2) as one of 43 complications described in 58 cases of nasolacrimal passageway problems in which silicone stents were

used for intubation. However, no explanation was offered for its aetiology.

The mechanism is probably as follows: Stretching of a small lacrimal punctum by a dilating probe, prior to intubation, can cause minor trauma to the meatus and bleeding. Tension on a taught silicone tube loop may approximate two traumatised puncta.

Healing occurs between the adjacent punctal margins causing formation of a fibrotic bridge about the silicone tube, creating a sort of pseudotarsorrhaphy.

Transpunctal adhesion is unlikely to occur after DCR with silicone intubation when the puncta have been dilated atraumatically and if the tension on the silicone loop allows free movement of the lids.

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