

Clinical case history - Q&A

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Case number FIVE

A 54-year old woman presented with a five-month history of a lump in her right upper lid. This had varied in size but, overall, didn't seem to be improving. The eye had not been sticky or watery and there had been no disturbance to vision. She had had no ocular problems in the past and neither had anyone in her family. She was in good health.

VAs were:
Right 6/6
Left 6/4

On examination, the appearance was as shown in **Figure 1**. There was an approximately 1cm lump at the medial end of the right upper eyelid. If pressed firmly, this was tender, but no discharge was forthcoming. The overlying skin was slightly red.

Questions

1. What structure within the lid is affected and abnormal in this case?
2. What is the diagnosis?
3. How might the absence of epiphora and discharge be explained?
4. How might the problem be solved (treated)?

Photographs by courtesy of the Department of Medical Illustration, Wigan and Leigh NHS Trust.



Figure 1 The appearance before treatment



Figure 2 The appearance six weeks after treatment

Answers

1. The disturbed structure is the upper canaliculus. The lateral $\frac{5}{6}$ th of lid margin is curved and delineated by the lashes. The medial $\frac{1}{6}$ th is more straight and lash free. The lacrimal punctum is located at the junction of the change in contour. From the punctum, the lacrimal canaliculus runs medially within the lid margin. The upper and lower canaliculi then join to form the common canaliculus which, in turn, drains tears into the lacrimal sac located deep to the medial canthus.
2. The diagnosis is 'right upper canaliculitis'. The lining (mucosa) of the canaliculus and the surrounding soft tissues are inflamed and swollen. This is probably due to chronic infection. There is retention of mucopus within the canaliculus producing the lump. Sometimes, this material can solidify into a stone known as a 'dacryolith'.

The appearance is similar to a chalazion (meibomian gland cyst), but the position is wrong for this. The meibomian glands are located within the tarsal plate and restricted to the lash bearing lateral $\frac{5}{6}$ th of the lid. They open onto the lid margin just behind the lashes.

3. In this case, both ends of the upper canaliculus appeared to have become blocked off by swelling and fibrosis. The upper punctum could not be entered with a punctal dilator. The material within the canaliculus was, therefore, trapped and could not be expressed either through the upper punctum or via the common canaliculus, to the lower punctum or lacrimal sac. The lower and common canaliculi were unaffected and, therefore, tears could drain preventing the development of a watery eye.
4. The only sure way to settle this problem was to surgically open the

upper canaliculus and release the retained material. Under local anaesthetic, the lid margin from the punctum to the canthus was incised and the canaliculus was de-roofed and converted to an open gutter to prevent re-accumulation. There was no dacryolith, but mucopus was drained and sent for culture. Canaliculitis is sometimes caused by, or associated with, unusual organisms, e.g. *Actinomyces*, but on this occasion, the relatively common gram negative bacterium, *Haemophilus influenzae* was isolated. A short course of topical antibiotic was given and the problem resolved. **Figure 2** shows the same eye six weeks later.

About the author

Chris Heaven is consultant ophthalmic surgeon at the Royal Albert Edward Infirmary in Wigan, Lancashire.