

# Double lower lid lacrimal puncta: a case report

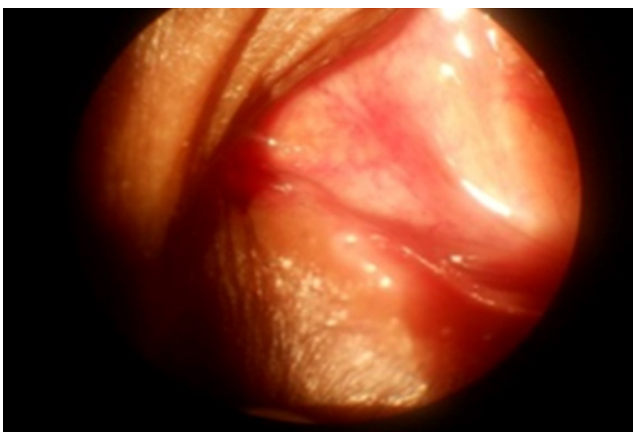
**Keywords:** punctum, canaliculus, supernumerary

## Introduction

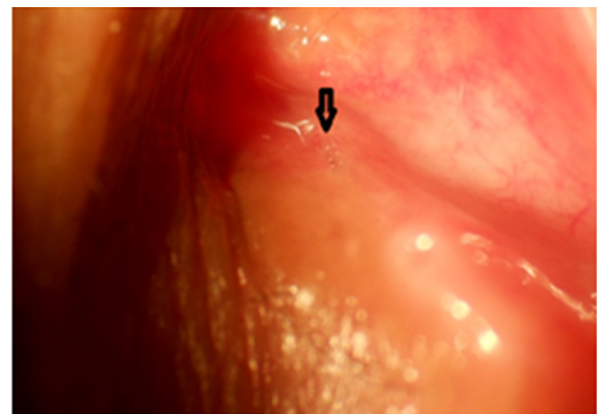
Lubrication of the ocular surface which maintains clear optics is mainly done by the nasolacrimal system. With the assistance of the blink, tears mainly produced by the lacrimal glands, travel nasally along the menisci towards a single opening, named the punctum, found on the medial margin of each lid. Each punctum is surrounded by a papilla and musculature and leads the tears via the canalicular passage towards the nasolacrimal sac which drains into nasal cavity. As the lids began to close the canaliculi and the sac are contracted expelling the tears towards the nasal cavity and creating a negative pressure within the sac and canaliculi. As the eye lids open, the tears from the menisci are drawn towards the puncta. Consequently, good apposition of puncta and lid margin with the ocular surface is key to the success of a functional tear drainage system. Obstructions or anomalies of the nasolacrimal route may cause imbalances in tear flow dynamics.<sup>1,2</sup>

## Case report

A male aged 49 years presented with history of watering of left eye for last 5 months. On examination two puncta were found to be present on the left lower lid (Figure 1). One of these punctum was in normal position and normal in appearance. The other was present 3mm internal to the former, close to the medial canthus and it was slit like in appearance (Figure 2). This eye has never been operated upon. On syringing it was observed that both these puncta separately communicated with the lacrimal sac through separate canaliculus. When fluid was injected through one puncta the stream of fluid was ejected through other punctum. Fluorescein dye disappearance test revealed more rapid clearance from right eye in comparison to left eye. The upper punctum in left eye and both upper and lower punctum in the right eye were normal. Dilatation of double punctum and canaliculus was done and there was no epiphora during the 6 months follow-up.



**Figure 1** Photo depicting double punctum in left lower eye lid.



**Figure 2** Photo showing slit like supernumerary punctum in left lower eye lid.

## Discussion

The anomalies of puncta and canaliculi are infrequently reported, although they are said to be not exceptionally rare. They are found more frequently in the lower lid and up to four puncta have been observed. Accessory puncta may open into the normal canaliculus or into an additional one. Other anomalies of lacrimal passages, such as fistula of the sac may be associated, and hereditary transmission has been recorded.<sup>3-6</sup> The entire lacrimal drainage apparatus is of ectodermal origin. Abnormal out budding of the portion of epithelial rod from which the canaliculus and punctum develop is regarded as the cause of these anomalies. In case of supernumerary puncta, associated congenital lacrimal anomalies including nasolacrimal duct obstruction, lacrimal fistula, lacrimal sac diverticulum, absence of upper canaliculus, atresia of upper punctum and anomalies in the shape and position of puncta may be observed. Associated systemic findings may include Down syndrome. But in the present case, no associated findings were observed.<sup>7</sup> Since this patient was of 49 years of age and had symptoms of watering in the involved eye for last 5 months only, we planned to dilate the punctum and canaliculus and there was no epiphora during the 6 months follow-up. Gungor R<sup>8</sup> also

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reported management of epiphora in case of congenital reduplicated punctum-canalculus with successful dilatation.

## Conclusion

A supernumerary punctum should be considered in a work up of a patient with epiphora. Presence of double puncta may be associated with compromised canalicular function.

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None.

## Conflicts of interest

The author declares that there are no conflicts of interest.

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