

## A tooth lesion in the eyelid in a Chinese infant: a rare case report

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Dear Editor,

My name is Jun Chen and I am currently working as an ophthalmologist at the Affiliated Nanping First Hospital of Fujian Medical University. I am writing this letter to present a case of a tooth lesion in the eyelid.

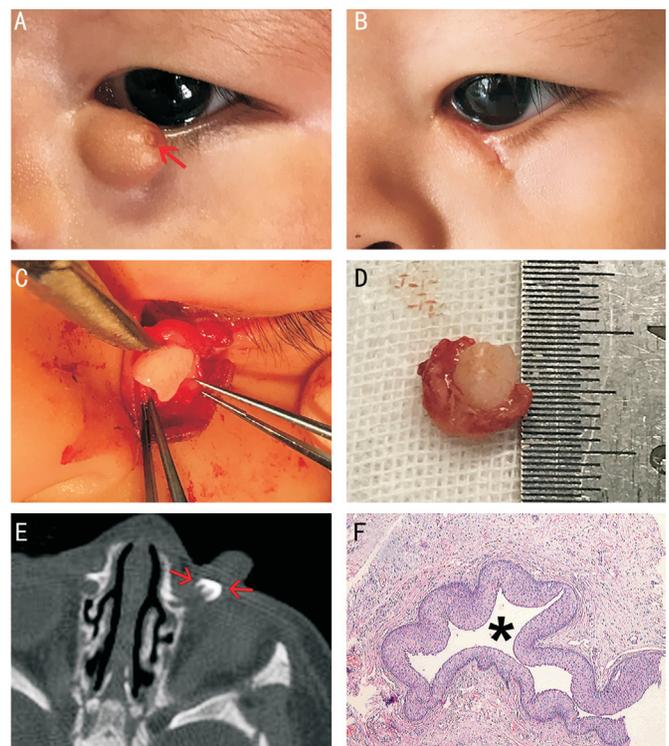
Choristomas are believed to be developmental malformations of normal, mature-appearing tissues in an abnormal anatomic location<sup>[1]</sup>. Choristomas consist of dermis-like tissue or ectopic tissues of mesoectodermal origin (lacrimal and other glands, fat, nerve, brain, cartilage, bone, and teeth)<sup>[2]</sup>. An ectopic tooth in the eyelid was first reported by Van Der Straeten<sup>[3]</sup> in 1934, then reported by Subramaniam *et al*<sup>[4]</sup> in 1966 and finally by Jakobiec *et al*<sup>[5]</sup> who named it palpebral odontogenic choristoma in 2009. Here, we describe a case of a tooth lesion in the eyelid in a Chinese infant. According to Declaration of Helsinki, a written voluntary informed consent was obtained from the patient for publication of this case report and accompanying images.

In March 2018, a 7-month-old baby girl was referred to our hospital for further management of congenital tumor and malformation in the lower inner eyelid of the left eye. The girl was a premature infant. There was no family history of ocular diseases or ocular trauma.

On examination at our clinic, slit-lamp examination showed a 15×15 mm, soft and mobile lower eyelid globoid mass with involvement of the eyelid margin and loss of eyelashes. A punctum-like structure was observed and mucinous secretions

outflow from the structure when press the mass (Figure 1A). CT scan of the orbit showed an abnormal high-density shadow with calcification near the left lacrimal sac and stricture of nasolacrimal duct (Figure 1E).

With a suspected clinical diagnosis of congenital tumor and malformation, the mass was removed totally under general anesthesia and sent for pathologic examination in March 23, 2018 (Figure 1B, 1D). During this surgery, a full-thickness resection of the eyelid was undertaken. Due to infringement of mass, the interior punctum and canaliculus was undertaken too. Palpebral dissection revealed a tooth (Figure 1C). Pathologic examination showed that adjacent to the tooth was some chronic inflammatory cells. The punctum-like structure was



**Figure 1 A tooth lesion in the eyelid** A: Globoid congenital tumor in the lower inner eyelid of the left eye and a punctum-like structure is observed (arrow); B: Appearance half year after surgery; C, D: The mass is removed totally and palpebral dissection revealed a tooth; E: Abnormal high-density shadow with calcification near the left lacrimal sac (arrow); F: Features of the tissue excised adjacent to the fistula (asterisk), the fistula is lined by nonkeratinizing squamous epithelium and some chronic inflammatory cells infiltrate the surrounding tissue (H&E).

a fistula and lined by nonkeratinizing squamous epithelium. (Figure 1F).

An ectopic tooth in the eyelid is extraordinarily rare. Since it was first reported by the French ophthalmologist Van Der Straeten<sup>[3]</sup> in 1934, only few cases have been previously reported in the literature<sup>[3-5]</sup>. To our knowledge, this is the fourth case report of a tooth structure discovered in the eyelid and not been previously reported in a Chinese population.

The previous three cases plus the present one all occurred in the inner aspect of the lower eyelid. Moreover, all 4 cases have described as dome-shaped, globose eyelid eminences with adjacent eyelid thickening. In the previous cases, the mass was firm but it was soft in our case. The reason may be that ectopic tooth was located in underlying tissue in our case. As the case reported by Jakobiec *et al*<sup>[5]</sup>, the mass also involved the eyelid margin and eyelashes were lost in our case. The most closely mimicking entity was the phakomatous choristoma which should be considered as the first differential diagnosis<sup>[5]</sup>.

Choristomas are occasionally familial<sup>[2]</sup>. But in this case, we did not have any meaningful findings.

In August 2018, we tried to obtain a panoramic dental X-ray at visit. But it was failed because the infant could not cooperate.

Due to our mistakes, when pathologist processes the mass, the tooth was discarded regrettably, and the surrounding soft tissue

was collected only. As a result, there are less histopathological details and photomicrographs in this case.

In conclusion, this is the first described case of an ectopic teeth within the eyelid in a Chinese patient in the literature. In this case, globose congenital tumor in the lower inner eyelid of the left eye and a punctum-like structure is observed, CT showed that abnormal high-density shadow with calcification near the lacrimal sac. Under general anesthesia, the mass was removed totally.

#### ACKNOWLEDGEMENTS

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