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Hair entanglement with the fungiform papilla: A novel case report

Hair-thread tourniquet syndrome (HTS) describes a condition where hair becomes tightly wrapped around a body appendage, potentially causing ischemia and tissue necrosis.[1] While usually affecting the extremities, HTS rarely involves oral structures.

A 10-year-old girl presented with hair wrapping around a fungiform papilla of her tongue. The patient was asymptomatic and had no significant medical history. Clinical examination revealed a hair strand tightly encircling a fungiform papilla on the dorsum of the tongue (Fig. 1A and B). The exact entanglement mechanism was unclear, as the patient was unaware of how or when the hair wrapped around the papilla.

Simple removal attempts were not feasible due to the tight encirclement. Surgical excision of the affected papilla was performed under topical anesthesia with surgical

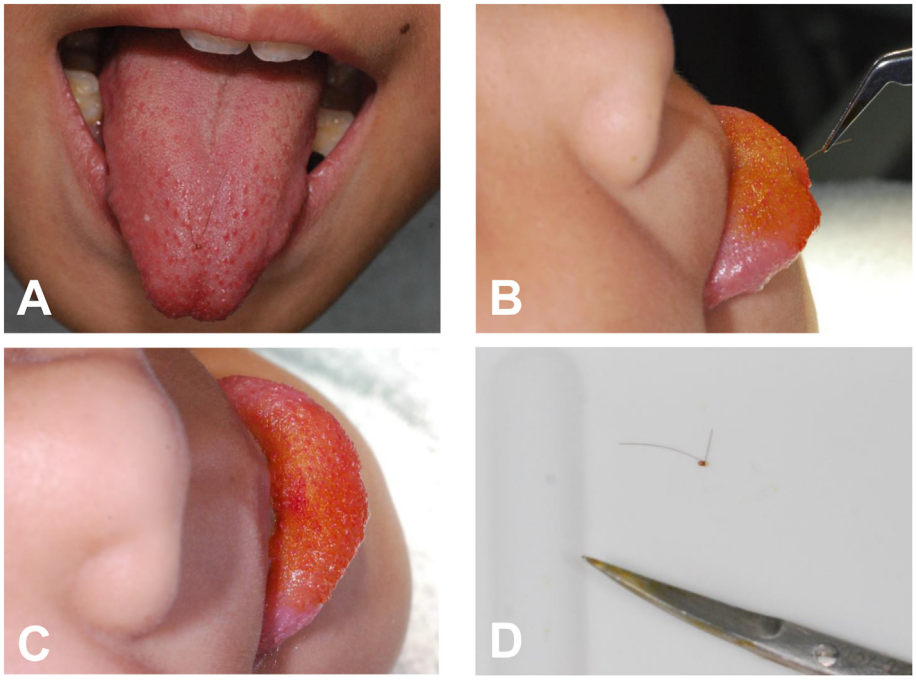

Figure 1 Clinical photographs showing entanglement of a hair with the fungiform papilla. (A) Clinical presentation showing the dorsal surface of the tongue with hair entanglement around a fungiform papilla. Note the typical appearance of the surrounding papillae. (B) Close-up view after regional disinfection showing the hair strand tightly wrapped around the base of the fungiform papilla. (C) The appearance of the tongue surface immediately after surgical excision shows minimal trauma to the surrounding tissues. (D) The tissue sample removed with the entrapped hair strand still visible demonstrates complete excision of the affected fungiform papilla.

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scissors. The postoperative course was uneventful (Fig. 1C and D).

HTS involving oral structures is extremely rare. Previous reports have documented cases affecting the uvula and circumvallate papillae. Schneider et al. reported circumvallate papillae hair tourniquet in a 7-year-old requiring surgical removal.[2] Two cases of uvular hair tourniquet have been described in infants, one requiring general anesthesia for removal[3] and another resulting in auto-amputation.[4]

The pathophysiology involves an initial loose encirclement followed by progressive tightening as hair, with its high tensile strength, can stretch when wet and contract while drying, creating a tourniquet effect.[5] Fungiform papillae, with their mushroom-shaped projections on the anterior tongue, may be particularly susceptible to this entanglement.

The uniqueness of our case lies in the involvement of a fungiform papilla, which has not been previously reported in the literature. Although similar to the previously reported cases of HTS affecting the circumvallate papillae, fungiform papillae are smaller, more numerous, and located anteriorly on the dorsal surface of the tongue.

This case highlights the importance of recognizing this rare phenomenon and considering prompt surgical intervention when conservative measures fail. Clinicians should be aware of the possibility of HTS affecting various oral structures, particularly children.

Declaration of competing interest

The authors have no conflicts of interest relevant to this article.

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None.

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