Teenager with Cystic Swelling in the Floor of the Mouth

A 15-year-old girl presented with complaint of progressively increasing swelling in the right side of the floor of mouth for the past one and half month. It was not associated with pain, but patient had difficulty in swallowing and mastication. On examination, there was a dome shaped, painless, bluish, well-circumscribed, fluctuating, non-compressible cystic swelling measuring 3.5 × 3.0 cm on the right side of the floor of mouth, pushing the lingual frenulum to left side and causing elevation of tongue (***Fig.*** **1**). Contrast-enhanced computed tomography showed a thin-walled cystic lesion at the floor of the mouth (***Fig.*** **2**) without any obstruction or cervical extension, suggesting a diagnosis of ranula.

Other differential diagnoses of cystic lesions at the floor of the mouth are ranula, dermoid and epidermoid cysts (soft nodular lesions with sessile base), lipoma (asymptomatic yellowish mass with doughy feel), vascular/lymphatic malformations (usually in infants, soft and compressible mass), Wharton duct blockage (pain and swelling of the affected salivary gland which get worse with chewing and smell of food), infections (painful, fever, adenopathy and associated dysphagia), and neoplasms of the salivary glands (rare in children, painful). This cystic lesion was consistent with typical appearance of an oral ranula (dome shaped, unilateral, painless, bluish, well-circumscribed, semi-transparent, fluctuating, and non-compressible cystic swelling). Based on their location, ranulae are divided into three groups: sublingual, sublingual-submandibular and submandibular. Sublingual ranula is a pseudocyst formed by extravasation and subsequent collection of the mucoid saliva from the submandibular gland. Females are more commonly affected, and usually present between first and second decade of the life. Formation of the ranula is attributed to the traumatic rupture of the salivary duct. Ranula may be asymptomatic, may have intermittent shrinkage, or can progress to a large lesion interfering with swallowing and articulation. Associated secondary bacterial infection may cause pain and tenderness. Treatment is required in large and symptomatic ranula. Marsupialization was previously used technique, but with high (60-90%) recurrence rate. Removal of the cyst along with sublingual gland is the preferred surgical method.

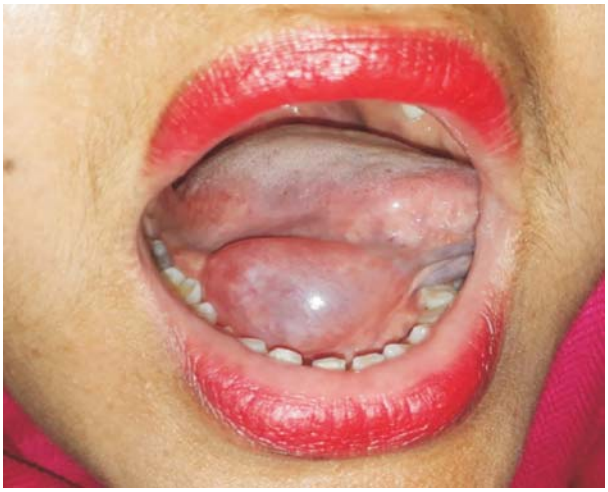

FIG.1 *Dome-shaped bluish, well circumscribed, semi-transparent, cystic swelling measuring 3.5 × 3 cm on the right side of floor of the mouth, pushing the lingual frenum to left side.*

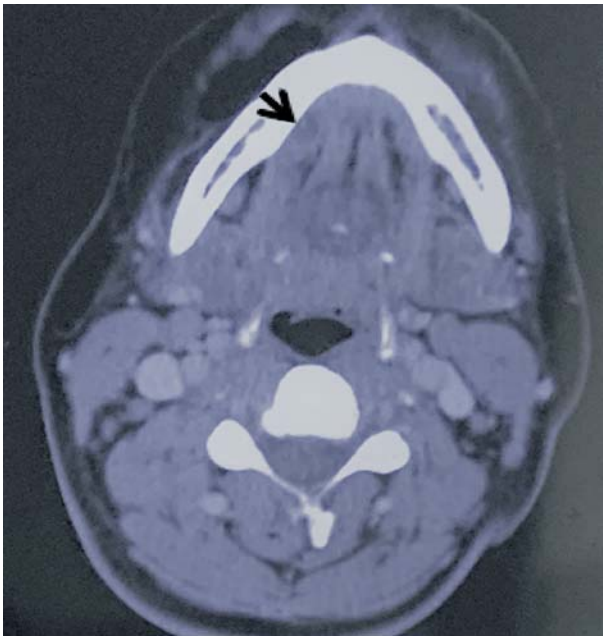

FIG. 2 *Contrast enhanced CT of floor of the mouth (axial section) shows an enhancing cystic lesion measuring, involving right floor of the mouth, abutting medially the right geniohyoid, genioglossus and the mylohyoid muscles (arrow).*

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