

Frog Spawns on the Tongue

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An 11-year-old girl presented to our facility with a slowly growing mass over the dorsal aspect of her tongue almost since birth. She complained of mild discomfort during swallowing of solid food and occasional bleeding from the mass. Her past medical history was unremarkable. On closer examination, the growth appeared multilobulated with clusters of innumerable pale pink to dark red colored coalescing tense cystic vesicles, situated along the midline over the dorsal aspect of the posterior third of the tongue, giving a frog-spawn appearance (Figure 1). When punctured with a fine 26G needle, a pale vesicle exuded clear straw-colored fluid. Based on the clinical features, a diagnosis of microcystic lymphatic malformation was made. Ultrasonography and histopathological examination of the incisional biopsy from the lesion further confirmed the diagnosis. We planned for complete surgical excision under the Department of Otorhinolaryngology. However, in the wake of COVID-19 pandemic, the patient was lost to follow-up.

Microcystic lymphangioma (ML), synonymously known as lymphangioma circumscriptum, is a benign hamartomatous lymphatic malformation leading to saccular dilatation of superficial dermal lymphatics communicating with large muscular-coated pulsatile lymphatic cisterns in deeper subcutaneous tissue.¹ It emerges at birth or early childhood, anywhere on the skin (especially head-neck area) and rarely in the oral mucosa (especially dorsum of the tongue) and enlarges thereafter with rare instances of spontaneous regression. Mucosal lesions characteristically appear as a cluster of small, tense, translucent, pebbly vesicles containing clear fluid, and some may contain blood, giving an impression of frog's eggs or tapioca pudding. Polarized-light dermoscopy reveals yellowish to brown rounded lacunae separated by pale septa, with occasional accumulation of blood in dependent parts of lacunae giving a hypopyon-like appearance.²

Microcystic lymphangioma on the tongue is often complicated by infection or, large growth may result in macroglossia, affecting deglutition, mastication, respiration, and speech.^{3,4}

Clinical differential diagnoses of ML on the tongue include hemangioma (spontaneous regression is more common), vascular malformations (ultrasonography with flow study to ascertain vascular component), lingual thyroid, thyroglossal cyst, heterotopic gastric mucosal cyst, mucosal wart, and granular cell tumor. The presence of superficial tense cystic vesicles containing clear fluid points toward the diagnosis of ML. Magnetic resonance imaging (MRI) and lymphangiography may help evaluate the extent of the lesion.⁴ Diagnostic confirmation is done by histopathological examination, which reveals epidermal hyperplasia with marked dilatation of superficial dermal lymphatics (thin endothelial-lined spaces containing amorphous eosinophilic material and neutrophils, macrophages, and secondary hemorrhage) surrounded by a loose fibrotic stroma, and the deeper subcutis may contain dilated lymphatic channels with focally thickened smooth muscle lining.^{1,3} Its lymphatic origin may be confirmed by immunostaining with D2-40 (podoplanin), which in our case could not be done due to institutional unavailability. Surgical excision is the treatment of choice. Other surgical modalities such as cryotherapy, Nd-YAG laser ablation, electrocautery have also been tried with success.^{4,5} Sclerotherapy with alcohol/bleomycin⁶ and topical and oral

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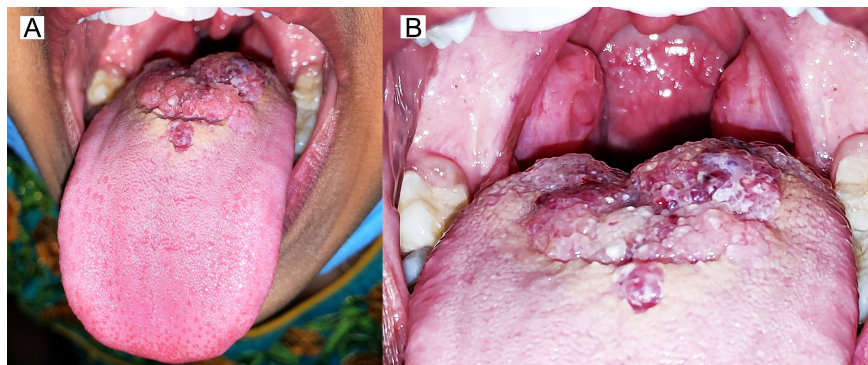


Figure 1. (A) Pale pink to dark red multiloculated mass situated along the midline of the dorsal aspect of the posterior third of the tongue. (B) Close-up of the lesion reveals tense cystic vesicles clustered on the surface giving a frog-spawn-like appearance.

sirolimus are some of the other treatment modalities for this condition.⁷ Lesions frequently reoccur after treatment.

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