Lymphangioma of the Tongue Revisited

Ahmed Hassan Kamil Mustafa, MSC, FFDRCSI*

Department of Maxillofacial Surgery and Diagnostic Sciences-College of Dentistry, King Saud Bin Abdulaziz University for Health Sciences, Riyadh, Saudi Arabia

*Corresponding author: Department of Maxillofacial Surgery and Diagnostic Sciences-College of Dentistry, King Saud Bin Abdulaziz University for Health Sciences, Riyadh, Saudi Arabia, Tel: 00966504767135

Abstract

Lymphangioma is a benign, congenital hamartomatous malformation of the lymphatic system, it is more common in the head and neck region. Oral lymphangiomas are rare but if it occurs, the tongue is the most commonly affected site, rarely on other sites such as the palate, gingiva, and alveolar ridge of the mandible. This study aims to throw light on lymphangioma of the tongue regarding pathogenesis, clinical signs and symptoms, and the different treatment modalities. Although lymphangioma is benign and its occurrence in the tongue extremely rare, a health care provider like a dentist must be conscious of the existence of such lesion to promote a precise diagnosis, and therefore, proper treatment can be rendered for this disorder, to avoid the serious complications that might occur when it becomes traumatized or infected in which case it obstructs the airway and lead to the death of the patient if not promptly rescued.

Introduction

Lymphangioma is benign tumors involving lymphatic channels the majority are confined to the head and neck region in about the majority of cases [1]. Lymphangiomas occur commonly at birth or before the age of two [2]. In the oral cavity, the anterior two-thirds of the tongue is the most commonly involved site [3]. This study aims to throw light on lymphangiomas of the tongue regarding pathogenesis, clinical signs and symptoms, classification, and the different treatment modalities.

Materials and Methods

An electronic search of the databases was conducted, within PubMed, using a combination of keywords and control terms (MeSH) were used wherever possible. The search terms included lymphangioma and oral cavity, lymphangioma and tongue, lymphatic malformations, and tongue.

Literature review

Lymphangioma is a benign, congenital hamartomatous malformation of the lymphatic system; it is more common in the head and neck region [2]. It arises as a result of hyperplasia of sequestered lymphatic vessels that have lost connection with the rest of the lymphatic channels. Virchow was the first to describe lymphangioma in 1854 [2]. Lymphangioma has a high for the head and region with about 75% occurring at this site. 50% of lymphangiomas are present at birth and 90% develop by 2 years of age [2]. The tongue is the most commonly affected site in the oral cavity, rarely on other sites such as the palate, gingiva, and alveolar ridge of the mandible [4]. Lymphangiomas usually present as papillary lesions with the same colour as adjacent mucosa [5]. Occasionally oral lymphangiomas are associated with syndromes like Turner’s syndrome, Noonan’s syndrome, trisomies, cardiac anomalies, fetal hydrops, fetal alcohol syndrome, and Familial pterygium colli [6]. Tongue lymphangiomas are usually superficial with a pebbly surface resembling a cluster of translucent vesicles [7]. The anterior two-thirds of the tongue is the most commonly affected site causing enlargement of the tongue [7]. Patients with tongue lymphangioma tend to have speech disturbances, poor oral hygiene, and bleeding from the tongue associated with trauma [8].

The complications of lymphangioma affect the patients in many ways including aesthetic, occlusal, functional, and psychological aspects [9]. The most serious complications are those related to infection which can result in Ludwig’s angina associated with...

Accepted: October 06, 2021; Published: October 08, 2021
Copyright: © 2021 Mustafa AHK. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.
an infected base of the tongue lymphangioma [10]. Postoperative complications include seroma formation, infections, minor bleeding, recurrent cellulitis, and lymph fluid leakage [11].

Lymphangiomas have been classified into:
- Lymphangioma Simplex (Capillary Lymphangioma) consists of small, capillary-sized vessels.
- Cavernous Lymphangioma is composed of large, dilated lymphatic vessels.
- Cystic Lymphangioma (Cystic Hygroma) exhibits large macroscopic cystic spaces [12].

Lymphangiomas are characterized histologically by the formation of lymphatic channels lined by endothelial cells, often the three types may be seen at the same lesion. The most common of the three types is the cavernous lymphangioma and is seen commonly in the tongue and floor of the mouth [13].

Another classification of the lymphangioma of head and neck based on the anatomical involvement had been proposed by De SerresLM.
- Stage/class I-infrahyoid unilateral lesions;
- Stage/class II-suprahyoid bilateral lesions;
- Stage/class III-suprahyoid or infrahyoid unilateral lesions;
- Stage/class IV-suprahyoid bilateral lesions;
- Stage/class V-suprahyoid or infrahyoid bilateral lesions;
- Stage/class IV-infrahyoid bilateral lesions [14].

According to their clinical presentation lymphangiomas are classified into macrocystic (cavities larger than about 2 cm³), microcystic (cavities smaller than about 2 cm³), and mixed (combining these two types). The objectives of the treatment of lymphangiomas is spontaneous regression of lymphangiomas is rare [2] and most of the adult lymphangiomas are encapsulated or partially circumscribed [16].

Conclusion

Although lymphangioma is benign and its occurrence in the tongue extremely rare, a dentist must be conscious of the existence of such lesion to promote a precise diagnosis, and therefore, proper treatment can be rendered for this disorder, to avoid the serious complications that might occur when it becomes traumatized or infected in which case it obstructs the airway and lead to the death of the patient if not promptly rescued.

Conflict of Interest

None declared.

Ethical Approval

Not applicable.

References


