

# Lymphangioma tongue - A case report

Author(s): Jitendra K. Singh and Devendra K. Yadav

Vol. 14, No. 1 (2010-01 - 2010-06)

Jitendra K. Singh and Devendra K. Yadav

Department of Pediatric Surgery, Vardhman Mahavir Medical College and Safdarjang Hospital, New Delhi, India

## Abstract

Lymphangioma of the head and neck with tongue involvement is more often seen than the isolated involvement of the tongue. Lymphangioma of the tongue may be localized or diffuse and the latter type constitutes the majority. We report a case of localized variety of lymphangioma arising from tip of tongue which is an uncommon location, its differential diagnosis and overview of the management.

**Key words:** Lymphangioma tongue, macroglossia, localized

Accepted July 12 2009

## Introduction

Lymphangioma is a benign, hamartomatous tumor of lymphatic vessels with a marked predilection for the head, neck and oral cavity [1,2]. It is reported that approximately 75% of all cases of lymphangioma occur in the head and neck region, and about 50% of all lesions are noted at birth. About 90% develop by 2 years of age [1]. When lymphangioma involves oral cavity, the anterior two third of the tongue is the most commonly affected region. We report a case of localized variety of lymphangioma arising from tip of tongue which is an uncommon location, its differential diagnosis and overview of the management.

## Case report

A two week old male child presented to us with swelling arising from tip of tongue. He was born to healthy non-consanguineous parents following an uneventful full term pregnancy. The swelling was present since birth and had not increased in size. No associated respiratory or feeding problems were noted. On examination, a 10x8x6 mm size cystic, non tender swelling with smooth surface erupting from tip of tongue was noted (Fig.1). The mass had a soft, elastic consistency and its surface was covered by epithelium. Rest of the tongue was apparently normal. There was no discharge from the swelling. No other mass was detected in the head and neck region. Systemic examination did not reveal any abnormality. Incisional biopsy was performed to allow a definitive diagnosis of the tongue lesion. A definitive diagnosis of lymphangioma was established and the parents were informed of the condition. Based on diagnosis, parents were explained for surgery but they were not ready for surgery as the lesion was static with no problems to the child. The patient has been periodically reviewed and the lesion has shown no tendency to enlarge.



**Fig. 1:** 10x8x6 mm size cystic swelling arising from the tip of the tongue

## Discussion

Lymphangioma results from abnormal development of the lymphatic system with obstruction to lymph drainage from the affected area. Lymphangioma are classified as microcystic (capillary), macrocystic (cavernous) and cystic lymphangioma (hygroma) according to the size of the lymphatic cavities incorporated [1]. Lymphangioma of the head and neck with tongue involvement is more often seen than the isolated involvement of the tongue. Lingual lymphangioma usually involves the dorsum of the tongue and the tip of the tongue is a rare location. Associated/isolated tongue involvement can lead to macroglossia with excessive salivation, halitosis, dysphagia, airway obstruction, speech, orthodontic and cosmetic abnormalities.

Lymphangioma of the tongue may be localized or diffuse and the latter type constitutes the majority. Localized lymphangioma occurs as nodular tumors elevated above the surface of the tongue. Their limited extent usually permits complete surgical excision. The diffuse lymphangioma involves a major portion of the tongue and offers a more difficult problem in management. Macroscopically the tongue has a granular appearance being studded with multiple transparent lymph filled cysts. Microscopically, there are abundant endothelial lined spaces containing blood or lymph found in the epithelial, subepithelial and muscular tissue. The tongue enlarges with each episode of upper respiratory tract infection and when protruding through the lip margin is also exposed to frequent trauma. These repeated episodes of infection and trauma lead to fibrous tissue being laid down. This leads to further dilatation of lymphatic channels and permanent enlargement of the tongue.

Lymphangioma is an important cause of macroglossia in children and the clinical differential diagnosis depends upon the extent of tongue involvement. Localised macroglossia can be caused by vascular malformations, lymphangioma, neurofibroma, teratoma, dermoid cyst, lingual thyroid, thyroglossal duct cyst, heterotopic gastric mucosal cyst, granular cell tumor and leiomyoma whereas generalized macroglossia can be caused by hemangioma, lymphangioma, chronic steroid therapy, hypothyroidism, acromegaly, amyloidosis, idiopathic muscular hypertrophy, Down's syndrome, mucopolysaccharidosis, and diabetes mellitus [3,4].

The most effective treatment is surgery [5,6] and the aims are to restore adequate breathing and swallowing, leave a tongue capable of normal speech, taste, sensation and oro-facial development and to achieve a good cosmetic result. Surgical reduction of the tongue is recommended before the anterior teeth have been completely replaced by adult teeth (around 7 years of age). However, some clinicians do not recommend treatment for non-enlarging lymphangioma of the tongue because of the difficulty in removal and the high recurrence rate [1].

Several methods of treatments such as injection of sclerosants, electrocoagulation, cryosurgery, carbon dioxide (CO<sub>2</sub>) laser and radiation have been advocated for diffuse lymphangioma of the tongue with variable results. Treatment using sclerosing agents is not very effective, as the discontinuous basement membrane of the lymphatic

vessels allows sclerosing agents to permeate freely into the connective tissues, diluting the concentration of the agent [7].

## **References**

1. Neville BW, Damm DD, Allen CM, Bouquot JE. Oral and Maxillofacial Pathology. 2nd edn. Philadelphia: W.B.Saunders, 2002:475-77.
2. Regezi JA, Sciubba JJ. Oral Pathology, clinical patho-logic correlations, 3rd edn. Philadelphia: W.B.Saunders, 1999:196-97.
3. Lalwani AK, Egel TL. Teratoma of the tongue: a case report and review of the literature. Int J Pediatr Otorhi-nolaryngol 1992; 24:261-68.
4. Bansal A, Sethuraman G. Lymphangioma circumscrip-tum of the tongue. Indian Pediatr 2006; 43:650-51.
5. Jian XC. Surgical management of lymphangiomatous or lymphangiohemangiomatous macroglossia. J Oral Maxillofac Surg 2005; 63:15-19.
6. Hong JP, Lee MY, Kim EK, Seo DH. Giant Lymphan-gioma of the tongue. J craniofac Surg 2009; 20:252-54.
7. Brennan TD, Miller AS, Chen SY. Lymphangiomas of the oral cavity: a clinicopathologic, immunohisto-chemical, and electron microscopic study. J Oral Max-illofac Surg 1997; 55:932-35.

### **Correspondence:**

**Jitendra K. Singh**

Department of Pediatric Surgery

Jawaharlal Institute of Medical Education and Re-search (JIPMER)

Dhanwantari Nagar

Pondichery 605006, India

**e-mail: drjitendrakumarsingh(at)gmail.com**

Curr Pediatr Res 2010; 14 (1): 59-60