OMPJ

10.5005/jp-journals-10037-1011

CASE REPORT

Tongue (Lingual) Abscess: Two Case Reports with Review of Literature

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ABSTRACT

Lingual abscess seems to be a rare clinical entity and is a potentially life-threatening infection. It may result in airway compromise and disseminated infections to other regions especially to the brain. Thus, a diagnosis of tongue abscess should be considered in all cases of acute tongue swelling. Lingual abscess requires prompt diagnosis and aggressive management as they are associated with potentially fatal complications. We hereby report two cases of lingual abscess occurring in a 39 years old man and an 8 years old girl who presented with painful swelling over the tongue. Fine needle aspiration cytology (FNAC) was effective in arriving at the diagnosis followed by histopathological confirmation.

Keywords: Fine needle aspiration cytology, Histology, Lingual abscess.

How to cite this article: Narasimha A, Rekha PR, Prasad CSBR, Sangeetha. Tongue (Lingual) Abscess: Two Case Reports with Review of Literature. Oral Maxillofac Pathol J 2014;5(1):456-458.

Source of support: Nil

Conflict of interest: None

INTRODUCTION

Lingual or tongue abscess is an extremely rare condition, which is more often seen in males than in females.[1] The tongue is generally resistant to infection due to a range of barriers which provide good immunity. Tongue abscess occurs if host defense mechanisms are impaired.[2]

However, if infected it has potentially fatal complications like brain abscess.[3] Therefore, it is imperative to diagnose the condition appropriately. Fine needle aspiration cytology (FNAC) of the lingual swelling may be a useful diagnostic as well as a therapeutic tool.[4] Though there are extensive western literature on tongue abscess, there are limited cases reported from India. Herein, we are report two cases of lingual abscess occurring in a 39 years old man and an 8-year-old girl who presented with painful swelling over the tongue.

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CASE REPORTS

Case 1

A 39 years old male patient presented with a progressively enlarging painful swelling measuring 2 × 2 cm, firm in consistency in the left anterior surface of the tongue, since 20 days. On examination cervical lymph nodes were not enlarged. White blood cell (WBC) count was 8900/mm^3 and serum glucose concentration 120 mg/dl. The patient was a known diabetic on medication.

Case 2

An 8 years old girl presented with a painful swelling, measuring 2 × 2 cm on the right anterior surface of the tongue (Fig. 1A) since 10 days. Patient had difficulty in talking and her WBC count was 13,000/mm^3. No lymphadenopathy.

Fine needle aspiration in both cases yielded 0.5 ml of pus. Cytological findings in both cases showed numerous neutrophils enmeshed in eosinophilic fibrin (Fig. 1B) Ziehl-Nelson staining for acid-fast bacilli was negative. No epithelial cells were seen. A diagnosis of acute inflammatory process (abscess) was offered.

In case 2, fine needle aspiration was diagnostic as well as therapeutic as the swelling subsided on aspiration. The patient was further treated with a course of antibiotics.

Excision biopsy was performed under general anesthesia for case 1.

Gross findings: Received a single grey black irregular soft tissue bit measuring 1.8 × 1 × 1.5 cm.

Microscopic examination revealed skeletal muscle fibers, minor salivary glands and a few blood vessels (Fig. 1C). There was mild inflammatory infiltrates (Fig. 1D). A diagnosis of chronic nonspecific inflammation was conferred.

Ethical clearance: This article was ethically cleared by the institutional ethics committee.

DISCUSSION

Lingual abscess or acute suppurative glossitis is a rare clinical entity found frequently on the anterior portion of the tongue and is usually unilateral.[1] It can occur at any age groups but common between 30 and 50 years old, with no sex predilection.[1,2]

The tongue is generally immune to infections due to several factors: (a) constant mobility of tongue producing a cleansing effect (b) thick keratinized mucosa that resists penetration by microorganisms (c) bulky muscle tissue (d) rich vascular supply and lymphatic drainage (e) immunological properties of saliva.[1]

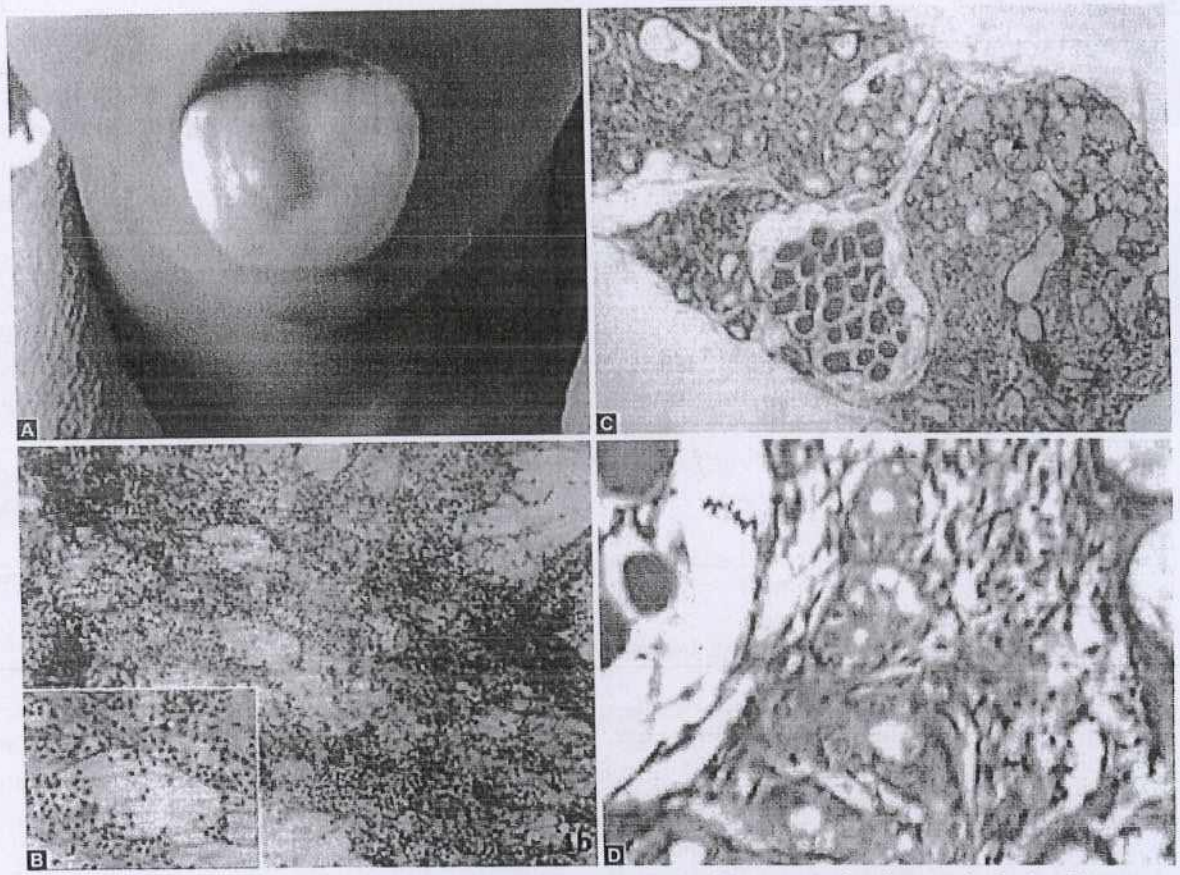
The severity of the lingual abscess may depend on the site. An abscess in the anterior two third may not be severe, easily diagnosed whereas those occurring on the posterior one third may obstruct the airway and may pose a diagnostic challenge.[2]

The etiological factors for abscess on anterior surface include trauma from ragged or caries teeth, ill-fitting dentures, biting or due to foreign body such as fish bone, etc.[5] Others include acute parenchymatous glossitis, infected circumvallate papillae, upper respiratory tract infections and immunodeficiency states.[5,6]

If it involves the posterior third of the tongue, the abscess usually originates as lingual tonsillar infection, infected thyroglossal duct cysts, or extensions of apical or periodontal infections from lower molars.[7] Boon et al have reported an interesting case of lingual abscess due to a bristle from a grill cleaning brush in a patient who presented with severe tongue and ear pain.[8]

Both our cases occurred on the anterior surface of the tongue. The cause in our cases may be attributed to diabetes in first case, however the cause is unknown in second case. Perhaps it may be just due to tongue biting while eating or tooth eruption which may have caused the trauma as the patient is a young child.

Clinically the patient may complain of sudden rise in temperature associated with chills, generalized discomfort, pain or flushed cheeks or painful swallowing and salivation.[6] Sometimes the patient presents with referred pain to the jaws and to the ears, due to involvement of the chorda tympani nerve. Occasionally it may also affect speech and breathing.[6]



Figs 1A to D: Photograph showing (A) swelling on the right anterior aspect of the tongue microphotograph showing (B) numerous neutrophils enmeshed in eosinophilic fibrin, (H&E, 40×) Inset (H&E, 400×) (C) skeletal muscle fibers, minor salivary glands and a few blood vessels (H&E, 40×) (D) muscle fibers, salivary glands and mild inflammatory infiltrates (H&E, 400×)

Pub: 9/2014

pISSN- 2278-4748, eISSN- 2278- 4802

JOURNAL OF EVOLUTION OF MEDICAL AND DENTAL SCIENCES
FREE, OPEN ACCESS, PEER REVIEWED JOURNAL OF MEDICAL AND DENTAL SCIENCES
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ACCEPTANCE LETTER

Sl. No- JEMDS /3/ January 20, 2014/29

Dear Dr. Nagesha C. K.
Assistant Professor,
Dept. of Ophthalmology,
Sri Devaraj Urs Academy of Higher Education and Research,
Kolar.

After a thorough peer review, I am pleased to inform you that your revised manuscript entitled "Dorzolamide therapy in X-linked retinoschisis as evaluated by spectral-domain optical coherence tomography." is accepted for publication in the forthcoming issue 'Journal of Evolution of Medical and Dental Sciences/ Volume 3/ Issue 3/ January 20, 2014.'

Kindly acknowledge receipt of this acceptance letter.

Date: 08/01/2014

Greenath.
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Publication Manager

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INSTITUTIONAL ETHICS COMMITTEE

NO: DMC/ KLR/ MEU/ IEC-CER/ 121 / 2013-14 DATE: 21-12-2013

CERTIFICATE

This is to certify that, the institutional ethics committee of Sri Devaraj Urs Medical College, Tamaka, Kolar has examined and unanimously approved the case report titled **"Dorzolamide therpy in X-linked retinoschisis as evaluated by Spectral domain optical coherence tomography"** authored by Dr. Nagesh C K, Dr. Narendra P Datti and Dr. Sugaranjini G in the department of Ophthalmology at Sri Devaraj Urs Medical College, Tamaka, Kolar.

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