



ABSCESS AT THE BASE OF TONGUE

Navneet Agarwal¹, Ritu Agarwal², Hemkanwer Joya *

1 MS ENT, Associate Professor, Department of ENT, Dr S N Medical College, Jodhpur (342001)
drnavneet_agarwal@yahoo.co.in

2 Ph.D Anatomy, Assistant Professor, Department of Anatomy, Dr S.N Medical College,
Jodhpur (342001) rituagarwal73@gmail.com

*M.Sc. Anatomy, Senior Demonstrator, Department of Anatomy, Dr S.N Medical College, Jodhpur(342001)
Satish93555@gmail.com, B-88, shastri Nagar, Jodhpur, Rajasthan India (342003)

ABSTRACT

Lingual abscess is an uncommon condition. Most of the cases of lingual abscess are seen in the anterior part of the tongue and abscess in the posterior one third are extremely rare. They are more dangerous since they can cause upper airway obstruction. Moreover, because of their location they may be missed on clinical examination by the clinician. So the clinician should be aware of this entity. Till 2006, only 50 cases of tongue abscess have been reported in English literature¹. We are presenting a case report with review of literature and a new method of draining the abscess.

Key words: - Abscess, Base of tongue, Vallecula, Epiglottitis.

INTRODUCTION

Lingual abscess is an uncommon condition. Most of the cases of lingual abscess are seen in the anterior part of the tongue and abscess in the posterior one third are extremely rare. They are more dangerous since they can cause upper airway obstruction. Moreover, because of their location they may be missed on clinical examination by the clinician. So the clinician should be aware of this entity. Till 2006, only 50 cases of tongue abscess have been reported in English literature¹. We are presenting a case report with review of literature and a new method of draining the abscess.

CASE REPORT

A 35 year old male patient presented to the OPD with complaints of pain throat and difficulty in swallowing for the last 5 days. The condition had worsened since last 24 hours. The examination showed normal mouth opening with drooling of secretions. Oral Cavity was normal. Examination with a 90° rigid Laryngoscope showed a smooth bulge roughly 2x3 cm on the right side of base of the tongue. Purulent secretions were seen oozing from the swelling (figure 1&2). There was hyperemia and edema of the Epiglottis. The vocal cords were normal and the patient did not have any respiratory distress. On palpation, the swelling was smooth, compressible and tender. The examination finger was found stained with pus. The blood investigations showed Neutrophilic Leucocytosis. Blood Sugar was 92 mg% and HIV was negative. Since the pus was already oozing from the swelling, the punctum

discharging the pus was dilated under endoscopic guidance with 60° Giraffe forceps. The patient was put on Amoxicillin & Clavulinic acid combination. There was rapid improvement.

DISCUSSION

Acute swelling of the tongue may be due to edema, hemorrhage, infarction, abscess². Abscess in the linguae are rare in spite of the fact that the tongue is constantly exposed to the pathogens. The various factors preventing the tongue infections include the continuous cleaning of the tongue by the saliva as also its immunologic properties. The thick keratinized mucosa of the tongue is also resistant to the penetration by the pathogens. Other factors preventing the infections in the tongue are the rich vascular and lymphatic supply and the thick musculature of the tongue². Most of the abscess in the tongue is located in the anterior 2/3. Abscess in the posterior 1/3 of the tongue are even rarer and more dangerous since they can cause respiratory obstruction. Till 2006, only 50 cases of tongue abscess have been reported in English literature¹. Moreover, because of their location they may be missed on clinical examination by the clinician. Abscess located on the anterior 2/3 of the tongue are easy to diagnose on the basis of clinical findings but those on the base of tongue are a challenge³. So the clinician should be aware of this entity. The location of the abscess makes drainage even more difficult.

The majority of the tongue abscesses are caused by direct trauma which may be due to denture, carious tooth or biting². The abscess on the posterior one third of the tongue may be caused by infection in lingual tonsil, Thyroglossal cyst remnants and pathologies from first and second Molars. The differential diagnosis of the anterior tongue abscess include Tuberculosis, Syphilis, Actinomycosis, neoplasm, Lingual artery aneurysms, angioedema. The lesion from the posterior third must be differentiated from Lingual tonsil abscess, Thyroglossal cyst,⁴ tumours of base of tongue, dermoid, lymphoma². Other conditions such as macroglossia due to metabolic disorders, Hypothyroidism, amyloidosis, acromegaly, etc must also be considered⁴.

Although tongue abscess can occur at all ages, most of the patients are between 30-50 years of age with equal incidence in both sexes².

Signs and symptoms: The onset of the problem is insidious, the initial symptomatology being of the preceding infection. The symptoms worsen after the abscess form. Symptoms consist mainly of pain in the tongue with fever. The pain may be referred to the ear. There is dysphagia and a few cases may present with difficulty in breathing also. There may be dribbling of saliva, restricted movement of tongue in severe cases. Vellin et al⁵ have described a case presenting as acute emergency.

Investigations :--The anterior tongue abscess can be diagnosed clinically and managed medically so radiological investigations are not warranted unless there is a suspicion of some complication. However, MRI is recommended if there is a swelling on the base of tongue whose etiology is not clear². In our case since the pus was seen oozing out of the punctum, no MRI was done. USG has been done and advocated by a few authors but not always feasible as the patient experiences severe discomfort when the swollen tongue is pressed with a probe².

MRI offers excellent anatomical delineation & resolution. It is an excellent diagnostic technique for evaluation of hidden areas such as base of tongue and floor of mouth. M.R shows lesion in the base of tongue with heterogenous signals on T1 weighted images with ring enhancement on contrast injection. Fat suppressed images specially in coronal plane can distinguish between involved & normal

tongue tissue². However, differentiation between an abscess & a tumour with central necrosis may be difficult. Certain authors have questioned the efficacy of M.R in diagnosis of tongue abscess. They found that T1 weighted images shows non specific low signal intensity and T2 weighted images show high signal intensity¹. PET was found to be 8% to 43% more accurate. However, there was no difference in the flouro-2 deoxy-D –glucose between benign and malignant lesions¹.

Abscess located on the anterior part of the tongue can be managed conservatively but those on the base of the tongue can cause difficulty in respiration and must be surgically treated². Treatment is surgical drainage. The drainage is done under General anesthesia. Munoz et al² have advocated the Suprahyoid approach for drainage. However USG guided puncture has also been advocated. This is less invasive and carries a low morbidity and less bleeding⁴.

Puncture of the abscess at the most prominent part under guidance of 90⁰ endoscope with the dilatation of the punctum with a curved Giraffe forceps offers a better mode of draining this abscess. Under local 10% xylocaine spray, the patient protrudes the tongue which is held by the assistant between the thumb and the middle finger. The assistant keeps the index finger of his left hand on the upper lip of the patient for stability. The abscess is visualized with a 90⁰ Telescope and then punctured with a wide bore needle. The punctum can be dilated with 60⁰ Giraffe forceps to drain the pus. The pus is spit out by the patient. This method offers several advantages as there is lesser bleeding, is an OPD procedure, does not require general anesthesia. The bulge of the abscess makes the intubation in general anesthesia difficult and the abscess can rupture during intubation causing complications. In our case we did not require to puncture the abscess as it had already burst and only dilatation was adequate. This method of aspiration with a wide bore needle and dilatation is very effective in small abscess and may also be tried in large abscess.

Prognosis is good and no recurrence has been reported. With the advent of modern antibiotics and diagnostic tools, mortality is rare. Grisby & Kaplan⁶ (1937) in their review of 12 cases found 3 deaths which were due to aspiration pneumonia when the abscess ruptured, hemorrhage & edema of the glottis.

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Fig 1 Endoscopic photograph showing the abscess at the base of tongue with pus oozing out

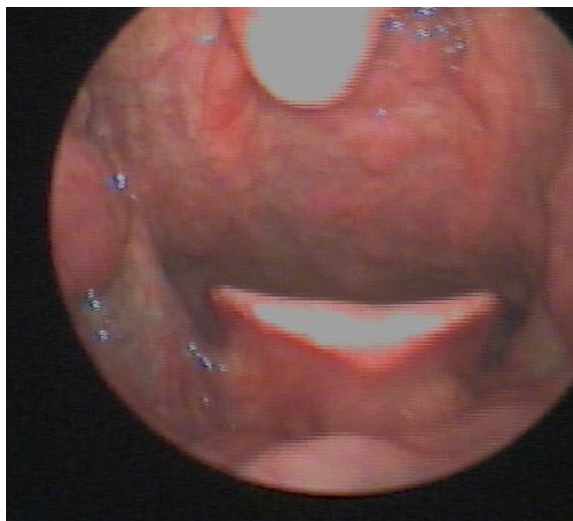


Fig 2 Endoscopic photograph showing normal base of tongue, Vallecula & Epiglottis post treatment