



MALIGNANT FISSURE TONGUE – AN UNUSUAL PRESENTATION

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ABSTRACT

Disorders of the tongue can present as a diagnostic and therapeutic dilemma for the treating physicians as well as the surgeons. Proper diagnosis requires a thorough history, including onset and duration of lesion, history of dental trauma and tobacco or alcohol addiction. Clinical examination of tongue with palpation and neck for cervical lymphadenopathy are essential part of diagnostic protocol. Lesions of tongue have a broad range of differential diagnosis ranging from benign idiopathic lesions (like geographic tongue, fissured tongue, and hairy tongue) to chronic infections and malignant lesions. Fissured tongue is a condition frequently seen in the general population that is characterized by grooves that vary in depth and are noted along the dorsal and lateral aspects of the tongue. Chronic tongue lesions of unclear etiology may require biopsy for diagnosis and further management. We are presenting here such rare case of deep fissured tongue of long duration which came out as malignant on biopsy and histopathological examination.

INTRODUCTION

Human tongue is a uniquely structured and multifunctional organ with extensive blood and nerve supply. Lesions of tongue have a variety of differential diagnosis ranging from benign idiopathic lesions (like geographic tongue, fissured tongue, and hairy tongue) to infections and malignant lesions. Owing to its exceptional lymphatic drainage, the infections or malignant lesion from tongue may spread to adjacent areas including neck. Thus examination of neck for cervical lymphadenopathy along with morphology of tongue is an essential part of examination protocol. The most common tongue condition is geographic tongue, followed by fissured tongue and hairy tongue [1]. Fissured tongue which is also known as lingua plicata, scrotal tongue or plicated tongue is a benign condition characterized by development of deep fissures on the dorsal as well as lateral surface of the tongue. It can be a heredity condition, with polygenic or an autosomal-dominant trait with incomplete penetrance [2]. It is usually seen in normal healthy individuals and conditions associated with lingua plicata are geographic tongue, pustular psoriasis, Melkersson-Rosenthal syndrome, Down

syndrome and chronic granulomatous disease [3]. Fissured tongue is an asymptomatic condition, but patient may have glossitis and halitosis due to growth of the bacterial and fungal colonies into the accumulated debris of food particles in the deep fissures. There is no definitive treatment for fissured tongue however avoiding tobacco, betel nut chewing, smoking, spicy and acidic foods along with good oral hygiene may help to prevent the complications [4]. A biopsy is rarely indicated in fissured tongue because of its characteristic diagnostic clinical appearance; however in a chronic smoker with long standing deep fissure, biopsy is mandatory to rule out any underlying malignant pathology as seen in our case.

CASE REPORT

A 62 year old male patient presented to Department of Otolaryngology with a chronic deep fissured tongue from last 1 year (Fig 1). Patient had complaint of odynophagia, halitosis, increased salivation and occasional episodes of bleeding from the lesion. There was no history of dental trauma. The patient was



vegetarian by diet, chronic smoker (30 pack- years) and occasional alcoholic. On examination mouth opening was normal, deep longitudinal fissure seen over tongue extending from anterior to posterior part of tongue with involvement of both dorsal and ventral aspects of tongue. Fissure was approximately 4× 2.5 cm with variable depth along its course with induration along the edges of fissure and ulceroproliferative lesion seen at places in the floor of fissure. Tongue mobility was restricted and slightly deviated to left side. USG neck showed an ill defined hypoechoic lesion with internal air containing cavitations

(3.8 ×3.6 cm) on left side of tongue involving tongue base with few hypoechoic lymph nodes seen bilaterally level II & III (largest measuring 2.9× 2.7cm). MRI neck showed T1 hypointense & T2 hyperintense lesion on anterior 2/3rd and base of tongue on left side with involvement of intrinsic muscles of tongue and infiltration of left genioglossus muscle (Fig 2). Multiple pieces of biopsy were taken from floor and edges of fissure and histopathological examination was consistent with poorly differentiated carcinoma tongue. Patient was sent to radiotherapy department for further management.

Fig 1. Showing deep longitudinal fissure on tongue with proliferative growth inside the fissure.

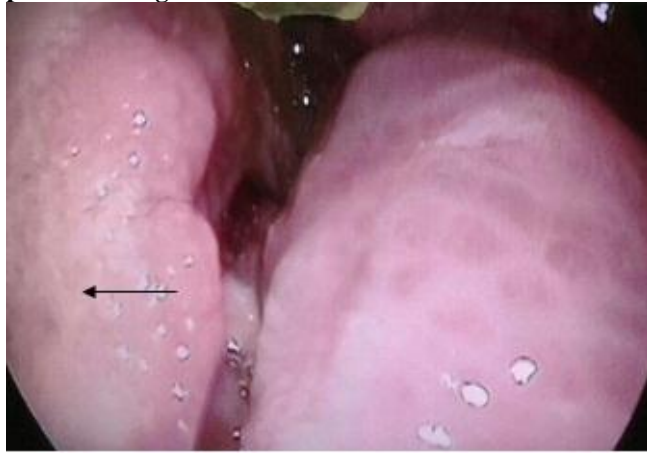
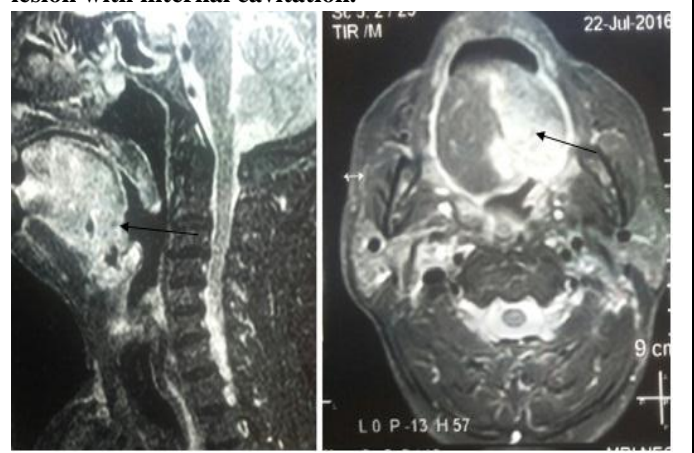


Fig 2. MRI scan (axial & sagittal views) showing tongue lesion with internal cavitation.



DISCUSSION

The lesions of tongue can present as a diagnostic and therapeutic dilemma for the treating physicians or surgeons. These lesions can present as benign pathologies like geographic tongue, fissured tongue and hairy tongue or as malignant one in form of ulcers or frank growth. Ulcers of tongue are divided into two groups:-

Short term ulcers (those that persist no longer than 3 weeks and resolve spontaneously) eg: Traumatic and aphthous ulcer Persistent ulcer (those that persist for weeks or months and usually require proper evaluation) eg: Malignant ulcer [5].

Traumatic ulcers are one of the common oral mucosal ulcers that occur because of mechanical (tongue or lip bite, brush injury), chemical or thermal injury and are usually self limiting. Common sites of these ulcers are tongue, lips, mucobuccal fold and palate. Sometimes these lesions are persistent for weeks and are included in persistent ulcers. Prognosis of traumatic ulcer is good and usually heals without any noticeable scar once the causative agent is removed. Malignant ulcer (squamous cell carcinoma) commonly involves the lateral border of the tongue. Initially lesion appears as a slight thickening over a red or white base which may later turn into nodularity, ulceration or frank ulceroproliferative growth. Biopsy is mandatory to confirm the diagnosis. Fissured tongue or lingua plicata is one of the common benign

conditions of tongue which is characterized by development of deep fissures on the dorsal as well as lateral surface of the tongue. Although seen in normal healthy individuals but may be associated with pustular psoriasis, Melkersson-Rosenthal syndrome, Down syndrome and chronic granulomatous disease [3]. When particularly prominent, the fissures or grooves may be interconnected, separating the tongue dorsum into what may appear to be several lobules. Similar finding was seen in our case where deep fissure appeared to divide the tongue in two lobular halves. A biopsy is rarely required in fissured tongue because of its characteristic diagnostic clinical appearance and literature is lacking on malignant variant of fissured tongue. Thus we are presenting here such rare case in a chronic smoker with deep fissured tongue in which biopsy was done and histopathology revealed it to be a poorly differentiated carcinoma.

CONCLUSION

Disorders of tongue are common, yet a variety of lesions are encountered some of which are benign idiopathic lesions (like geographic tongue, fissured tongue, and hairy tongue) followed by infections and malignant lesions. These lesions can present as a diagnostic and therapeutic dilemma for the treating clinicians. Fissured tongue is a benign and commonly encountered lesion in the general population. However an ignored and long standing



fissure tongue in chronic smokers may turn out be a diagnostic surprise for the surgeon, as was encountered in this case but proper examination with digital palpation followed by biopsy helped us to reach the diagnosis and treatment was started accordingly without delay. Therefore every physician or surgeon should have a high index of suspicion and keep this possibility of malignancy in fissured tongue.

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CONFLICT OF INTEREST

No financial interest or any conflict of interest.

