



Lingua Plicata in a 11-Year-Old Boy: A Case Report

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Received: 16 June 2023

Published: 01 July 2023

Abstract

The tongue has been supposed to be a marker of health and also known to be a mirror of the general physical and oral health. Fissured tongue, also known as scrotal tongue, lingua plicata, plicated tongue or furrowed tongue is a benign inherited malformation characterized by deep grooves or fissures on the dorsum of the tongue. In most of the cases it is considered to be an incidental finding diagnosed during the routine intraoral examination. Generally it is seen to be an asymptomatic condition unless entrapment of debris within fissures occurs. It is one of those pathologies which is predominantly ignored, frequently misdiagnosed and eventually over-treated. Any deviation from the normal is a prime health concern. Thus, a thorough knowledge and evaluation of the condition can help a long way in diagnosis and advocating the required treatment & referrals.

Keywords: *Tongue diseases, oral hygiene, fissured tongue, lingua plicata.*

Introduction

The tongue has been supposed to be a marker of health and also known to be a mirror of the general physical and oral health.[1] Fissured tongue, also known as scrotal tongue, lingua plicata, plicated tongue or furrowed tongue is a benign inherited malformation characterized by deep grooves or fissures on the dorsum of the tongue.[2] It is considered to be a variant of normal tongue architecture. Approximately 0.5% to 6% of the general population is affected and the condition is rare in children younger than 10years of age.[3] The prevalence of fissured tongue has been found to vary among different population groups increases significantly with age in both genders especially after the age forty and has a predominance in males.[4] There is no specific etiology recognized for fissured tongue, but can be familial and a polygenic or autosomal dominant inheritance with incomplete penetrance is assumed.[5] In most of the cases it is considered to be an incidental finding diagnosed during the routine intraoral examination. Generally it is seen to be an asymptomatic condition unless entrapment of debris within fissures occurs.[1]

Based on observations by Sudarshan R. et. al., they have proposed a novel method of classification and classified fissured tongue as follows:

1) Based on pattern of tongue fissure:

- a) Central longitudinal pattern: vertical fissure running along the midline of the dorsal surface of the tongue.
- b) Central transverse pattern: horizontal fissure/fissures crossing the midline.
- c) Lateral longitudinal pattern: vertical fissure/fissures running laterally to the midline.
- d) Branching pattern: transverse fissures extending from the central longitudinal fissure (branching tree appearance).
- e) Diffuse pattern: fissures diffusely distributed across the dorsal surface of the tongue.

2) Based on number of tongue fissures:

- a) Mild: tongue fissures ranging from 1 to 3 in number.
- b) Moderate: tongue with more than 3 fissures.
- c) Severe: tongue with more than 10 fissures.

3) Based on associated symptoms such as burning sensation and feeling of food lodgement:

- a) Without burning sensation.
- b) With burning sensation.

Case Report

An 11-year-old medically fit, male patient came to the department of Paediatric and Preventive Dentistry of Career Post Graduate Institute of Dental Sciences and Hospital, Lucknow with a chief complaint of forwardly placed upper front teeth. Past medical and dental history was non contributory. General clinical examination demonstrated the patient to be in good health and extra-oral examination revealed normal facial morphology.

Intra-oral examination revealed proclination of maxillary anterior teeth (Figure 01) and multiple linear cracks or deep grooves measuring 1-2 cms on the middle 1/3rd and anterior 2/3rd of the tongue (Figure 2). It was asymptomatic and non-tender on palpation. A provisional diagnosis of skeletodental malocclusion and a fissured tongue was established. But the parents and the child were more concerned about the correction of maligned teeth. The relevant photographs, study models and x-rays were advised in order to plan for the correction of malocclusion.



Figure 01- Skeletodental malocclusion showing proclined maxillary anteriors.



Figure 02- Showing fissures on the tongue in middle 1/3rd and anterior 2/3rd region

Discussion

Fissured tongue is a rare inherited disorder where the tongue has deep grooves which can vary in size and depth. Patients are usually asymptomatic unless debris is entrapped within the fissures which may act as stagnation areas on the tongue surface in which glossitis may begin.[6] Geographic tongue is a common accompaniment and some authors believe that both these conditions are interrelated. Fissured tongue is a common oral lesion in patients with psoriasis. Some of the conditions associated with are Diabetes mellitus, Down's syndrome, vitamin A and B deficiencies, pernicious anemia and acromegaly. It is also one of the triads of Melkersson- Rosenthal syndrome namely a fissured tongue, relapsing orofacial edema and facial nerve palsy.[7]

Its diagnosis is based on the clinical appearance and the differential diagnosis may include geographic tongue and atrophic glossitis. The condition is benign but permanent. Its complications are infection, inflammation and halitosis due to the entrapment of food debris and microorganisms within the grooves. Reassurance and treatment of the underlying cause may be beneficial in managing such conditions.

Swishing of the mouth with plain water and gentle brushing with a soft tooth brush of the dorsal surface of the tongue after meals is advisable. However, in patients suffering with a severe symptomatic form, the first goal of management should be to discover the cause of irritation and to take local measures to resolve the clinical manifestations and should be encouraged to maintain oral hygiene and incorporate a balanced diet.[8]

Conclusion

Based on the clinical pattern this case report seems to be a diffused type of fissured tongue without any symptoms. It is one of those pathologies which is predominantly ignored, frequently misdiagnosed and eventually over-treated. Any deviation from the normal is a prime health concern. Thus, a thorough knowledge and evaluation of the condition can help a long way in diagnosis and advocating the required treatment & referrals.

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