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RESEARCH ARTICLE

FISSURED TONGUE IN HIV PATIENT UNDER HAART –A RARE CASE REPORT

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ABSTRACT

The oral manifestations of HIV disease in children are well described, although occasional descriptions of new lesions make their way into literature. HAART generally reduces the frequency and/or security of most oral lesions associated with HIV disease. Fissured tongue is one of the nonspecific tongue lesions rarely observed in HIV patients under HAART. This paper presents a rare case report of fissured tongue in HIV patients of 11 year old under HAART.

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INTRODUCTION

Oral manifestations in pediatric HIV infection are common.The prevalence of these lesions ranges from 20 to 80% depending on patient immune suppression, being considered as markers of infection and predictors of progression of HIV disease to AIDS. However recent findings in the literature show that many etiological factors were involved in the oral manifestations related and not related before .Also, after the introduction of highly active antiretroviral therapy (HAART),somechanges could be obser -ved, such aschanges in the prevalence of some oral manifestations and emergence of other lesions in group of individuals (Patton, 2002). Diagnosis of tongue abnormalities requires examination of tongue morphology and a thorough history, including onset and duration as well as intra-oral life style habits. The most common abnormal conditions of the tongue is geographic tongue, fissured tongue and hairy tongue. Geographic tongue occurs in about 1% of general population and 50% in association with fissured tongue (Kullaa-Mikkonen, 1985).

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Fissured tongue is a common benign condition of unknown etiology, clinically it is seen as centralgroove could be associated with multiple fissures differs in numbers, depth and directions, usually are asymptomatic but could be associated with halitosis and burning pain (Rioboo-Crespo et al., 2005).[3] The prevalence rate varies in different geological regions. It is reported to be 0.6% in South Africa, 27.7% in Brazil, and 5.71% in Southern India. It occurs worldwide with no predilection for any particular rate and prevalence equal in both male and female patients (Aboyons, 1973). The etiology is unknown but hereditary play a significant role. The condition may be congenital present at birth or may become apparent during childhood or later in life.[5]We present a case report of a fissured tongue in a 11 year old male patent with HIV under HAART.

Case report

A 11 year old male patient reported with a chief complaint of deposits on the teeth. He was healthy and no complications had been reported at birth. A detailed history regarding the demographic data, systemic health and associated tongue symptoms was recorded. Medical history of the subject was confirmed as HIV patient, under HAART for the past 3 years. On general examination there were no associated anomalies in the body.

Extra oral assessment revealed an alert boy with straight profile, competent lip and symmetrical face with normal TMJ movements. Intraoral examinations revealed mixed dentition with all the teeth were normal in size, shape and number. His oral hygiene was fair with calculus accumulation on the lingual surface of lower anterior teeth.

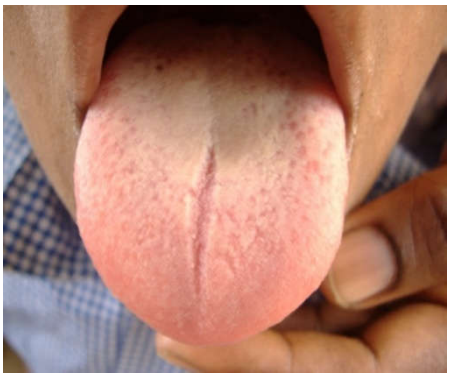

Fig.1. Tongue showed deep prominent central longitudinal groove in the dorsal part

The tongue showed marked deep, prominent, central, longitudinal groove in the dorsal part which is asymptomatic. The characteristic clinical appearance of the tongue confirmed the diagnosis of fissured tongue. As part of the treatment oral prophylaxis was done followed by oral hygiene instructions. Patient advised to avoid irritating food and drink and also to maintain proper dental care such as brushing and cleaning the top surface of the tongue to remove food debris. Patient was called for regular follow up to monitor the oral hygiene.

DISCUSSION

Fissured tongue is a benign condition characterized by numerous shallow to deep grooves or furrows on the dorsal surface of the tongue .Aging, malnutrition and local factors such as infection may contribute to its development and symptoms. Although these grooves may look unsettling,the condition is usually painless (Rogers, 2004). Traditionally tongue lesions have been considered disorders of primary concern regarding oral and general health. As the clinical appearance of tongue conditions varies greatly, the vast majority of tongue conditions are of local etiology. The recognition of tongue lesions may be helpful in the early diagnosis of some systemic diseases. Tongue lesions have been reported as being more prevalent in hematological disorders, diabetes mellitus, dermatological diseases and some gastrointestinal diseases (Banoczy et al., 1993). Fissured tongue, also termed as lingua plicata, linguafissurata, scrotal tongue, pictated tongue, grooved tongue, furrowed tongue. It is relatively common condition with a prevalence of between 6 to 8 % in adults and 11% found amongst children. The prevalence of the condition increases significantly with age according to 40%of the population after the age of 40years (Mathew et al., 2008).The clinical appearance is considerably varied in orientation, number, depth and lengths of the fissure pattern. Usually it is asymptomatic with depth of fissures ranging from 2-3mm and may extend up to 6mm.The exact cause of fissured tongue is not known. However researcher believe it may occur as a result of genetic trait, aging, environmental factor, malnutrition and infection (Voros – Balog et al., 1999). Fissured tongue is classified as (Ramachandran Sudharsha, 2015).

Based on pattern:

- **Central longitudinal pattern:-**Vertical fissure running along the midline of the dorsal surface of the tongue.
- **Central transverse pattern:-**Horizontal fissures crossing the midline.
- **Lateral longitudinal pattern:-**Vertical fissures running laterally to the midline.
- **Branching pattern:-** Transverse fissures extending from the central longitudinal fissure.
- **Diffuse pattern:-** Fissures diffusely distributed across the dorsal surface of the tongue.

Based on number

- **Mild:-**Tongue fissures ranging from 1 to 3 in number
- **Moderate:-** Tongue with more than 3 fissures.
- **Severe:-** Tongue with more than 10 fissures.

Based on associated symptoms

- With burning sensation
- Without burning sensation

Fissured tongue may be present as an independent manifestations or associated with certain symptoms like Melkersson-Rosenthal syndrome, Down syndrome, Sjogren's syndrome, Coffin-Lowry syndrome, Frasers syndrome, Orofacial digital syndrome type1,Mohr syndrome, Pierre Robin syndrome, Maroteux –Lomy syndrome and ECC syndrome (Kumar, 2011). Fissured tongue is the most common finding in psoriasis. But the severity of fissured tongue does not seen to increase with increasing severity of psoriasis. The tongue in Sjogren's syndrome often becomes fissured as a result of decreased salivary secretion. Geographical tongue occurs in about 1 % of general population and 50% in association with fissured tongue (Byohatti., 2010). Burning sensation on the tongue may probably with the systemic factors and poor oral hygiene. Local factors implicated in the etiology are ill fitting prosthesis, infection, parafunctional habits, allergic reactions, xerostomia and galvanism. Systemic factors concerned with burning sensation include medications, anemia, oesophageal reflux, deficiency of vitamin 'B' complex, zinc, iron and psychological factors.Fissured tongue is usually asymptomatic. Thecircumstances is worsened by entrapment of food particles within the fissures by poor oral hygiene and nutrition. Anyone potentially develop fissured tongue and it is not a contagious disease and people cannot pass into anyone else (Arendrof, 1996). Fissured tongue is a harmless condition and no treatment is necessary except, to encourage good oral hygiene including brushing the dorsal surface of the tongue to remove any food debris from the fissures. Cleaning the tongue helps to prevent irritation and possible bad breath that may occur from food getting trapped into the grooves. In addition to regular tooth brushes, numerous specific devices to clean the tongue are available. Dentist can assist patients by making recommendations concentrating such devices for cleaning the tongue (DuToit, 2003; Aveu, 2003).

Conclusion

Fissured tongue is a benign condition and no specific treatment is indicated but in patients with severe conditions the first goal of management should be discovery of the irritating cause. Local measures to resolve the clinical manifestations can be attempted.

The patient should be encouraged to maintain good oral hygiene and balanced diet to prevent the symptoms caused by local irritating factors.

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