FISSURED AND BURNING TONGUE

Dear Editor,

The tongue plays an important role in speech, taste and in deglutition. Any disease of the tongue makes the intake of food difficult thereby depriving the individual of adequate essential nutrients. This communication aims to draw the clinician's attention to the underlying cause in cases of fissured and burning tongue. A fissured tongue is a malformation characterised by furrows or grooves on the dorsum of the tongue. It is generally painless but accumulation of food debris and the resultant irritation might cause pain. Halperin et al [1] have reported an overall incidence of fissured tongue as 5 percent. They have shown that the incidence of this condition increases with age and is probably not a developmental malformation. Chronic trauma and vitamin deficiencies may have a role to play in the formation of fissured tongue [2]. Iron deficiency anaemia, deficiencies of Vitamin B2, folic acid, Vitamin B12 and zinc can cause burning sensation of the tongue.

A 40-year-old male patient reported with the complaint of burning sensation of the tongue for the past two months. He was passing stool 5-6 times per day for the past one week. Patient was a non-smoker, a teetotaler and non diabetic. Stool examination revealed infection by *Giardia intestinalis*. His haemoglobin was 13 gm/dl

Local examination of dorsal, ventral, lateral margins and posterior one third of the tongue did not show any ulcer or lesion. His oral hygiene was good. There was no calculus on lingual surface of lower anteriors. The dorsum of the tongue was fissured and atrophy of fungiform papillae was noticed (Fig 1). Candidal infection on the dorsum, beginning from left lateral side, enclosing the tip, till the right lateral side, in an inverted 'U' shape was noticed. The tongue appeared raw red in colour. The dorsum was cleaned with a swab and hydrogen peroxide. The patient was treated with - Tab Tinidazole (500 mg) 12 hourly for 7 days, (for Giardiasis), - Inj B Complex, 1 Inj IM daily and - Local application of 1% Clotrimazole thrice a day for 14 days.

Patient was advised bland diet for seven days. He showed marked improvement within fourteen days. Injection B Complex was given on alternate day for one month. Patient was advised to add green leafy vegetables to his diet. On reviewing after one and half months, it was found that the fissures on the tongue remained but burning sensation and fungal infection had disappeared.

Along with local examination of the tongue, a general history and laboratory investigations are essential to arrive at the right diagnosis. Blood test especially haemoglobin level, blood sugar and if need be, peripheral blood smear to rule out pernicious anaemia are essential. Gastro-intestinal infections like amoebiasis, giardiasis, ascariasis and achlorhydria must be ruled out. Avitaminosis due to elimination of B complex producing intestinal flora after antibiotic therapy must be kept in mind. Folic acid deficiency occurs due to sprue, a malabsorption syndrome. Patient passes fatty, frothy stools, has glossitis, leukopenia and pigmentation of the skin. Burning sensa-

Fig. 1 : Fissured tongue with atrophic papillae

tion of tongue and oral mucosa rapidly subsides on taking folic acid [3]. Glossitis and angular cheilosis in riboflavin (Vit B2) deficiency, sore tongue in iron deficiency anaemia, dwarfism, hypogonadism and glossitis in zinc deficiency must be thought of while arriving at a diagnosis. Burning sensation can also be caused because of allergy to denture material, mouth washes [4] and chemical substances in toothpaste.

The clinician must be wary of aphthous ulcers, geographic tongue, lichenplanus, oral submucous fibrosis, candidiasis and hairy leukoplakia in HIV positive individuals. The patient had supplemented his diet with green leafy vegetables. After one and half months, a marked improvement in the tone, texture and colour of the tongue was noticed. The depth of the fissures had decreased. Patient was reviewed after six months. He did not have any further episode of burning tongue.

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