

Tongue Bite Leading To Tongue Gangrene

Abstract

Tongue bite is a commonly encountered injury. Though usually trivial, it can lead to serious complications like gangrene. Gangrene of tongue occurs rarely due to its rich blood supply. Here we report a rare case of tongue bite due to accidental fall where after a few days of injury, patient developed cellulitis of tongue leading to gangrene, respiratory obstruction and septicemia.

Key Words

Tongue bite, Tongue Gangrene

Introduction

The tongue is an important part of oral cavity, which helps in taste, salivation and deglutition^[1]. Due to its excellent multiple blood supply, any vascular insult is quickly overcome by the rich supply^{[2],[3]}. The blood supply to the tongue is by the lingual artery (main artery), the ascending pharyngeal artery and the external facial artery^[1]. Occlusion of any one artery is therefore unlikely to result in ischemic atrophy or gangrene^[2]. Gangrene of the tongue may be caused by sudden impairment of vascularity^[4], temporal arteritis^[2], giant cell arteritis^[5] or idiopathic^[1]. We encountered an extremely rare case of gangrene of the tongue due to trauma (tongue bite).

Case Report

A 35 years old man presented in the emergency with 5 days old history of an accidental fall, which resulted in tongue bite with features of septicemic shock, respiratory distress and altered sensorium. The stitches were applied and supportive treatment was provided by a village practitioner. Three days later, the whole tongue became swollen and dark with halitosis accompanied by high grade fever. Dark colour gradually turned black (Fig 1) and patient developed difficulty in respiration. There was no past history or symptoms suggestive of cardio vascular or other chronic systemic disease. On examination, there was dyspnoea due to upper airway obstruction as the whole tongue was swollen and gangrenous. Systolic blood pressure was recorded 70 mm Hg, radial pulse rate 110 per minute and feeble. A tracheostomy was done to relieve

respiratory obstruction. After rehydration and under the cover of broad spectrum antibiotics, amputation of gangrenous tongue was done. But despite all the possible best efforts, the patient expired after few hours. Routine investigations pointed towards inflammatory pathology.

Discussion

Gangrene due to tongue bite is a rarely reported presentation though cases of tongue gangrene due to other causes have been reported in the literature. Tongue gangrene can occur due to giant cell arteritis and temporal arteritis^{[5],[6]}. Such patients present with history of headache

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Figure 1- shows gangrene of tongue

and scalp pain in 50-70% cases. Jaw claudication and ocular manifestations are other highly specific features of giant cell arteritis. In rheumatoid hyper viscosity syndrome, the patients can develop tongue gangrene^[7]. These patients have features of mucosal bleed, visual symptoms and neurological symptoms besides features of rheumatoid arthritis. Tongue gangrene has also been reported in old patients receiving vasopressin therapy with underlying atherosclerotic disease^[8]. Sudden impairment in vascularity due to cardiogenic shock, application of occlusive ring and ergotamine injection can lead to tongue gangrene^{[4],[9]}. Radical neck dissection and ligation of external carotid artery followed by radiotherapy to neck has been reported as a cause of unilateral tongue necrosis^[10]. Cases of even idiopathic gangrene have been reported^[5]. In our case we concluded that accidental fall caused injury to tongue leading to disruption of vascularity, which due to inappropriate handling led

to gangrene, oedema, respiratory obstruction, septicemia and shock with fatal outcome.

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