

## Tongue necrosis caused by trauma - Case report



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### ABSTRACT

Tongue necrosis is a rare injury that often occurs, especially after trauma. This article reports the case of a 39-year-old patient who experienced partial tongue necrosis due to trauma. The patient underwent medical and prophylactic treatment with favorable results, avoiding the need for glossectomy.

**Keywords:** Trauma, Tongue, Necrosis.

## 1 INTRODUCTION

Tongue traumas are common, especially in domestic and traffic accidents where individuals may bite their own tongues due to the force of impact. The resulting trauma can lead to simple injuries, ulceration, laceration, tissue necrosis, and even partial organ amputation. A retrospective study by SHAIKH and WORRAL (2002) on patients up to 18 years old with facial trauma found that 46.4% of intraoral soft tissue injuries involved the tongue. This article aims to report and discuss the case of a patient who experienced partial tongue necrosis due to local trauma and underwent medical and prophylactic treatment, avoiding the need for glossectomy.

## 2 CLINICAL CASE

A 39-year-old male patient, with fair skin, was received at the Oral and Maxillofacial Surgery outpatient clinic of Casa de Saúde Hospital (HCS) in Santa Maria city, with a case of tongue necrosis due to a traffic accident. The patient reported biting his tongue with the force of the impact caused by the accident. In immediate hospital care, the tongue was sutured; the next day, the suture fell, and the patient was referred to the HCS oral and maxillofacial outpatient clinic. In the medical history, the patient reported being diabetic and denied smoking or alcohol consumption. Clinical examination revealed extensive tissue necrosis on the dorsal and apical part of the left side of the tongue (Figure 1).



Figure 1 - Initial appearance of the lesion



As a course of action, the patient was advised hospitalization for case observation, and partial glossectomy was planned. As adjuvant treatment, intravenous Clindamycin 300 mg every 6 hours was prescribed to control infection and prevent the progression of necrosis. Additionally, nursing staff received instructions for prophylactic cleansing with 0.12% chlorhexidine digluconate every 12 hours, tissue scraping with sterile gauze, and a recommendation for a liquid and cold diet. After 4 days of hospitalization, an improvement in the patient's clinical condition was observed, with a better appearance of the tongue and a pink color, indicating increased tissue vascularization and a decrease in necrotic tissue (Figure 2).

Figure 2 - Seventh day of clinical follow-up



On the seventh day of hospitalization, the lesion was reassessed, and it was observed that there was tissue regeneration in almost the entire affected area of the tongue, eliminating the need for glossectomy. Consequently, the patient was discharged, prescribed oral Clindamycin 300 mg every 6 hours for 7 days, instructed on local care, oral hygiene with 0.12% chlorhexidine digluconate for 7 days, and scheduled for a follow-up in 5 days for further evaluation. At the follow-up appointment, 20



days after the trauma, tissue regeneration was evident (Figure 3). The patient reported satisfaction with the treatment outcome and the absence of difficulties in speech, swallowing, and chewing.

Figure 3 - 20 days after the trauma, 5 days after hospital discharge



### 3 DISCUSSION

The tongue plays crucial roles in chewing, swallowing, taste, speech, and airway protection, making it a vital organ for an individual's nutrition and overall well-being. Total or partial loss of the tongue can lead to irreversible physical and emotional damage to the patient (SEITZ et al., 2017). According to (tarara), open approaches to the base of the tongue negatively impact functional and aesthetic outcomes for the patient. WEISSMAN et al. (2004) reported a case of a patient with multiple tongue lacerations who underwent surgery for organ suturing. Despite antibiotic and anti-inflammatory prescriptions postoperatively, the patient experienced a change in color in the region, progressing to necrosis on the eighth day, requiring partial glossectomy. A case of tongue necrosis in the anterolateral region, similar to this study, was reported by MAAHS et al., involving a patient with cranial arteritis. The patient was treated with corticosteroids and immunosuppressants, showing good progress, but the treatment extended over 3 months until satisfactory tongue regeneration. In this case report, the accurate diagnosis and treatment facilitated the positive evolution of the patient, leading to hospital discharge with tongue preservation. The collaborative care provided by all professionals demonstrated that teamwork contributes to the resolution and quality of life for service users.

### 4 CONCLUSION

Clindamycin and prophylactic cleansing with 0.12% chlorhexidine digluconate had a positive effect on tongue regeneration in this case of partial tongue necrosis and should be considered when analyzing therapeutic options for tongue necrosis cases.



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