

Foreign body in tongue: clinical report

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Abstract

The history reported deals with the diagnosis and management of a pencil fragment embedded in the tongue of a three-year-old. It raises several important points in diagnosing and treating foreign bodies in the soft tissues of children.

Numerous types of foreign bodies embedded in the soft tissues of the oral cavity have been reported in the literature.¹⁻¹⁰ Bullet fragments,^{1,2} fractured teeth^{3,5} and impression materials^{6,7} are among the most common. Less frequently seen objects include fish bones,⁸ needles,⁹ and plastics.¹⁰ These foreign bodies seldom have been found in the tongue.^{3,8}

Clinical Report

A three-year-old black female presented to a local clinic after falling and driving a pencil into her tongue.

She was given an examination at the clinic, viscous lidocaine was prescribed, and she was dismissed.

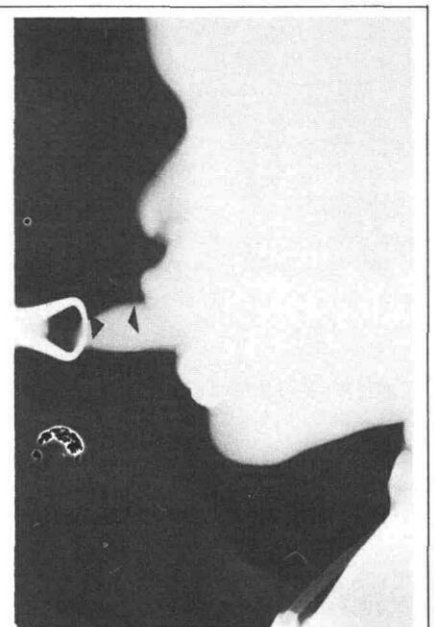
The next day, the patient presented to the emergency room with a swollen and infected tongue. The physical examination revealed a well-developed, well-nourished female weighing 32 pounds with an axillary temperature of 99.2 F. An entry wound was noted on the right ventral border of the tongue with a small amount of purulence at the opening. There was a .5 cm area of induration around it (Figure 1). Erythema extended from this area of induration to the dorsal surface where a small nodule could be palpated. Further examination was difficult due to the patient's lack of cooperation. The patient's medical history and review of systems were noncontributory.

The patient was admitted because both examination and treatment required general anesthesia. After routine laboratory procedures were completed 300,000



FIGURE 1. (left) Twenty-four hours after injury; note small area of induration and erythema.

FIGURE 2. (right) Towel clamp in tip of tongue; arrows indicate a small mass in the tongue.



units of aqueous penicillin G were administered intravenously every four hours. Examination revealed a WBC of 15,000/cm³ with a differential of: segmented neutrophils = 54, band neutrophils = 1, lymphocytes = 41, monocytes = 3, and eosinophils = 1. A towel clamp was placed to protrude the tongue and a radiograph was obtained. A radiopaque mass was noted in the body of the tongue (Figure 2).

Purulence from the enlarged entry wound on the ventral surface of the tongue was cultured and sent for a gram stain and a culture and sensitivity test. After careful manipulation with a mosquito hemostat, a pencil lead and wood were removed. There was complete penetration to the dorsum of the tongue. The defect was irrigated vigorously. The dorsal surface of the tongue was closed leaving the ventral surface open. The patient did well postoperatively and was discharged the next day with a penicillin elixir prescription. The cultures were a normal flora, sensitive to penicillin.

Discussion

This case illustrates several important points in diagnosing and managing foreign objects in oral cavity soft tissues in children.

During the emergency treatment of all pediatric patients a good history of the event and examination of the object in question (if possible) should be obtained from the parent. Every effort must be made to gain cooperation from the child for an adequate clinical and radiographic examination. If cooperation cannot be attained by conventional means, premedication, restraints, or general anesthesia should be considered. Antibiotic treatment of infections should not proceed without determining the etiology.

In this case the patient was extremely difficult to examine. Due to the patient's apprehension and swelling of the tongue, sedative techniques were deemed inadvisable. Only under general anesthesia with a controlled airway were a soft tissue radiograph and thorough examination possible. Intravenous antibiotics were administered presurgically to establish

good blood levels and to prevent possible spread of infection into an airway-sensitive region. Previous studies have noted that an undetected foreign body embedded in the tongue can cause sudden and severe infection resulting in airway obstruction.⁴ This case illustrates the need to determine if a foreign body still is present in an area of trauma. Delay in treatment could result in a life-threatening infection.

Conclusions and Recommendations

As in this report of a patient with a pencil fragment embedded in the tongue, it is often difficult to perform a thorough examination on an apprehensive young child; however, a detailed history, thorough exam, soft tissue radiographs, and patient cooperation are necessary for correct diagnosis and treatment. A rapidly developing airway problem secondary to a sudden exacerbation of wound infection in the tongue is a serious sequela.

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