PORTUGUESE JOURNAL OF PEDIATRICS

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Ludwig's angina: a rare and life-threatening case report

Angina de Ludwig: um caso clínico raro e potencialmente fatal

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Keypoints

What is known

- Ludwig's angina is a rare bacterial cellulitis of the tongue and floor of the mouth.
- It can be life-threatening if not treated promptly.

What is added

- Routine frenuloplasty to correct speech disorders may serve as a trigger for Ludwig's angina, though this is rare.

A healthy 10-year-old boy was admitted to the emergency department 20 hours after a frenuloplasty was performed at the dentist to correct speech disturbances. He presented with progressively worsening bilateral submandibular pain associated with marked swelling of the cervical and submandibular regions. He denied fever, breathing difficulties, or other symptoms. On examination, he was hemodynamically stable, eupneic, and presented with drooling and a muffled voice. His tongue and the floor of his mouth were swollen, resulting in trismus. The anterior cervical region was swollen up to the angle of the mandible, and it was painful on palpation with no adenopathy (Fig. 1). An urgent consultation with otorhinolaryngology was conducted and Ludwig's angina was diagnosed. The patient was hospitalized and started on intravenous clindamycin and corticosteroids. A computed tomography of the neck was subsequently performed, which demonstrated increased attenuation of the subcutaneous fat of the submandibular and submental spaces, supporting the diagnosis.

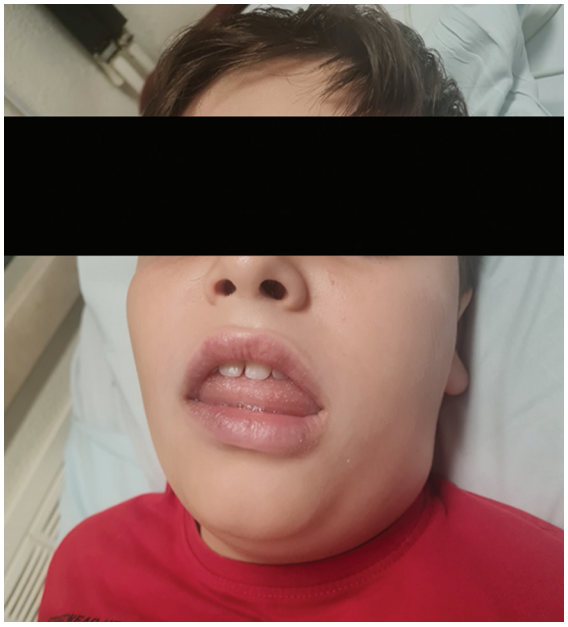

Figure 1. Boy with Ludwig's angina.

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Received: 31-07-2023
Accepted: 06-05-2024
https://pjp.spp.pt

Available online: 10-06-2024
Port J Pediatr. 2025;56(3):190-191
DOI: 10.24875/PJP.23000008

Laboratory evaluation showed leukocytosis with neutrophilia and a C-reactive protein of 6 mg/dL. During hospitalization, the patient continued to display no signs of respiratory distress and the signs of inflammation showed progressive improvement. Pain was controlled with analgesia. The patient was discharged on D6 and clinically improved under oral clindamycin for 10 days.

Ludwig's angina is a rare cellulitis of the tongue and floor of the mouth with the potential for acute progression that can be fatal, with airway obstruction being the leading cause of death[1-5]. Most cases are due to odontogenic infection, contiguous spread from oropharyngeal infection, or trauma to the mandible or floor of the mouth[1,4,5]. Early recognition, aggressive empiric antibiotic therapy, and serial airway evaluation are the mainstays of treatment; glucocorticoids promote antibiotic penetration and lessen airway edema[1,4]. We present this case to highlight the importance of early recognition of this rare diagnosis in the emergency department.

Author contributions

C. Cezanne: Conception and design of the study, report, review or other type of work or paper; Acquisition of data either from patients, research studies, or literature; Analysis or interpretation of data either from patients, research studies, or literature; Drafting the article; Critical review of the article for important intellectual content; Final approval of the version to be published; Agreement to be accountable for the accuracy or integrity of the work; I. Foz: Acquisition of data either from patients, research studies, or literature; Analysis or interpretation of data either from patients, research studies, or literature; Drafting the article; Final approval of the version to be published; Agreement to be accountable for the accuracy or integrity of the work; E. Marques da Costa: Acquisition of data either from patients, research studies, or literature; Analysis or interpretation of data either from patients, research studies, or literature; Drafting the article; Critical review of the article for important intellectual content; Final approval of the version to be published; Agreement to be accountable for the accuracy or integrity of the work; J. Sousa Martins: Acquisition of data either from patients, research studies, or literature; Analysis or interpretation of data either from patients, research studies, or literature; Drafting the article; Critical review of the article for important intellectual content; Final approval of the version to be published; Agreement to be accountable for the accuracy or integrity of the work.

Funding

None.

Conflicts of interest

None.

Ethical considerations

Protection of humans and animals. The authors declare that the procedures followed complied with the ethical standards of the responsible human experimentation committee and adhered to the World Medical Association and the Declaration of Helsinki. The procedures were approved by the institutional Ethics Committee.

Confidentiality, informed consent, and ethical approval. The authors have followed their institution's confidentiality protocols, obtained informed consent from patients, and received approval from the Ethics Committee. The SAGER guidelines were followed according to the nature of the study.

Declaration on the use of artificial intelligence. The authors declare that no generative artificial intelligence was used in the writing of this manuscript.

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