A Cervical Skin Lesion of Dental Origin

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A healthy 15-year-old female presented with a three-week right lateral cervical lesion. She was referred due to periodic purulent discharge, without pain or fever. Physical examination revealed a non-tender 20 x 10 mm crusted nodule on the right submandibular region, without inflammatory signs (Fig. 1). Gentle pressure on the surrounding tissues resulted in purulent discharge. There were no palpable adenopathies. Intraoral examination showed multiple caries and a dental abscess (tooth number 4.7).

Cervical ultrasound revealed an oval solid nodule measuring 26 x 12 mm with poorly defined limits, which could be a reactive adenopathy. The work-up continued with blood testing, including hemoglobin 12.3 g/dL, leucocytes 9800 cells/µL, C-reactive protein 0.01 mg/dL and normal blood smear, sedimentation rate, liver enzymes, uric acid and lactate dehydrogenase. The Epstein-Barr, cytomegalovirus, toxoplasmosis, *Bartonella henselae,* human immunodeficiency virus and syphilis serologies were negative. The polymerase chain reaction and interferon-gamma release assays for *Mycobacterium tuberculosis* were negative. The pus culture was positive for *Staphylococcus epidermidis*. A computed tomography scan revealed signs of bone demineralization in the fourth quadrant, with a solution of continuity to tooth number 4.7 (Fig. 2). The patient was hospitalized and started intravenous amoxicillin and clavulanic acid (90 mg/kg/day, every eight hours). A follow-up ultrasound showed a hypoechogenic tubular structure from the skin to right mandible suggestive of a fistulous path (Fig. 2), confirming the diagnosis of a cutaneous odontogenic fistula. The follow-up after two weeks of antibiotic therapy revealed apparent healing and no drainage (Fig. 3). Dental treatment was scheduled, but the patient did not attend any other follow-up visits.

Cutaneous odontogenic fistula is not widely reported in children until recently.[1] It is the consequence of chronic infection due to caries, trauma or periodontal disease.[1-2] The sites are usually anatomically close to the causative tooth and have a variable appearance.[1-3] The differential diagnosis is made with other cutaneous cervical lesions, being frequently misdiagnosed with consequent unnecessary investigation and inadequate treatment.[1,4]

Figure 1. Cervical lesion at presentation.

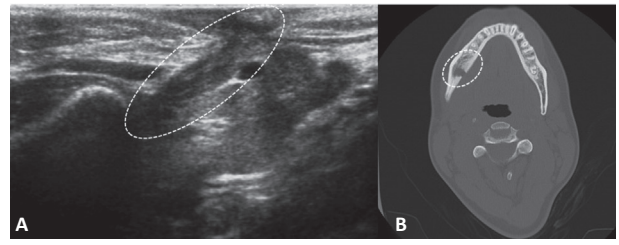

Figure 2. Ultrasound image showing the fistulous path (A). Computed tomography images showing a bony cortical defect at the molar region of the third and fourth quadrants, with a solution of continuity between the bone cortical and the tooth number 4.7 (B).

Figure 3. Cervical lesion after antibiotic treatment.

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Antibiotic therapy will bring a temporary resolution, with recurrence if the source of infection is not eliminated.[2,3] Definitive treatment involves root canal treatment or teeth extraction, expecting spontaneous closure of the tract within five to 14 days after.[1]

Keywords: Adolescent; Cutaneous Fistula/etiology; Periapical Diseases/complications

WHAT THIS REPORT ADDS

- Cutaneous odontogenic fistula is a poorly recognised disease in the pediatric age, as differential diagnosis of neck skin lesions.
- Approach to the cutaneous odontogenic fistula includes a careful look for a potential odontogenic infection.
- Management includes observation by a stomatologist for identification o the culpable tooth, performing an imaging exam in case of doubt in the diagnosis and dental treatment for a cure.

Conflicts of Interest

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Confidentiality of data

The authors declare that they have followed the protocols of their work centre on the publication of patient data.

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