ORAL PATHOLOGY

Oral manifestation of syphilis

BACKGROUND

Syphilis is an infectious disease cause by *Treponema pallidum* that is usually acquired through sexual contact, although blood transfusion, transplacental exposure, and contact of the newborn with a contagious lesion can also result in infection. This important public health issue has a global incidence of 1.5 cases per 1000 females and 1.5 per 1000 males, with a prevalence of 18 million new cases. Although the prevalence has diminished with the use of antibiotics and health education programs, changes in sexual behavior and a lack of awareness regarding the control of sexually transmitted diseases are leading to a re-emergence. Oral lesions vary based on the clinical stage of the disease. A case in a young man presented some challenges in diagnosis.

CASE REPORT

Man, 23, presented with a persistent painless ulcer on the vermilion of his lower lip. It had appeared 6 weeks before and remained stable. He had no history of trauma to the region and did not smoke. Treatment with over-the-counter topical corticosteroids was unsuccessful. He had had a colonoscopy to rule out Crohn disease related to rectal bleeding and abdominal pain and was evaluated by a dental surgeon 4 weeks after the lesion appeared. At that time, he had undergone blood tests and a biopsy, but neither the blood test nor the venereal disease research laboratory (VDRL) tests were revelatory. A nonspecific chronic inflammatory process was identified on routine hematoxylin and eosin staining.

An extraoral evaluation identified palpable, movable, soft, and painless lymph nodes. The lip lesion was a round ulceration about 1 cm in diameter and covered with a yellow-white fibrinopurulent membrane. On palpation, the lesion was slightly indurated with rolled borders (Figure 1).

Reevaluation of the hematoxylin and eosin slides revealed a perivascular inflammation with a predominance of plasma cells, suggestive of primary syphilis. Because the VDLR test was performed 30 days after the oral ulcer first appeared, it could have been a false negative result. When the laboratory tests were repeated 60 days after the lesion appeared, positive VDRL and fluorescent treponemal antibody absorption (FTA-ABS) tests confirmed the diagnosis.

The patient was given 2.4 million units of benzathine penicillin G intramuscularly once a week for 2 weeks. The lesion resolved partially after 7 days and completely by 2 months after completing treatment.

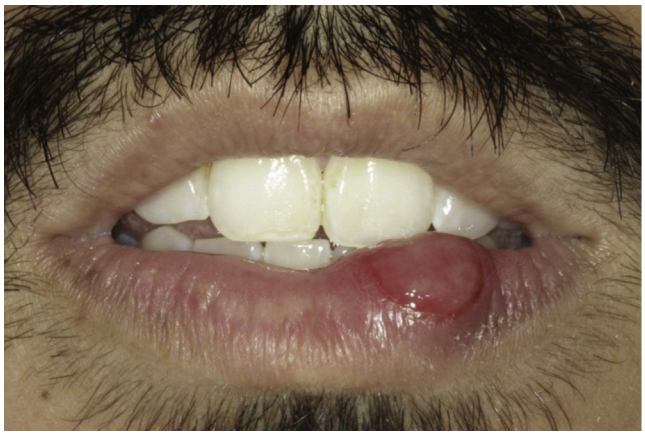

Figure 1. A painless ulcerative lesion with rolled borders on the left lower lip vermilion zone. (Courtesy of Kipper JF, Klein IP, Hildebrand LC, et al: Chronic ulcerative lesion of the lip. *J Am Dent Assoc* 150:220-224, 2019.)

ANALYSIS

The classic manifestation of primary syphilis is syphilitic chancre, which appears at the site of primary contact 3 to 90 days after exposure. Although the lesion is seen more often in the anogenital region, 10% to 20% of primary syphilis cases are extragenital, with mouth lesions noted in 40% to 75% and the lips, tongue, and palate involved most often. Lesions are painless, single, and have indurated borders. Patients also exhibit lymphadenopathy in 80% of cases, and this was found in this patient.

Clinical Significance

Having a lip ulcer persist for more than 14 days can suggest malignancy in non-smoking young patients, but the diagnosis is uncommon. Clinicians should rule out irritative factors and consider infectious diseases. In this case, the diagnostic reasoning was appropriate but the incubation period of syphilis complicated the ability to arrive at a proper diagnosis, making this case unusual and revealing a situation not well documented in the literature.

Diagnosis must consider the history of injury, patient's sexual habits, clinical presentation, pathological features, and concomitant serologic test results. Serologic and pathological tests are essential to confirm the diagnosis. The most reliable serologic tests are VDRL and rapid plasma regain tests. However, if performed in the initial stages of the disease, false-negative results are not uncommon as a result of insufficient antibody levels. The FTA-ABS test is more specific.

The presence of plasma cells with perivascular distribution should raise the level of suspicion for syphilis. Other findings common in syphilis include epithelial hyperplasia with submucosal plasma cell infiltration, exocytosis, endarteritis, neuritis, ulcerative areas, and, eventually, Langerhans-type giant cells.

The differential diagnosis for oral ulcerations of the lip should include squamous cell carcinoma, eosinophilic ulcer, actinic cheilitis, and paracoccidioidomycosis. Each of these should be ruled out based on the patient's history and clinical findings.

Kipper JF, Klein IP, Hildebrand LC, et al: Chronic ulcerative lesion of the lip. *J Am Dent Assoc* 150:220-224, 2019

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ORAL SURGERY

Managing postoperative pain

BACKGROUND

Clinicians are ethically bound to provide patients with relief from pain. About 80% of patients experience moderate or severe pain after oromaxillofacial surgery, so efforts to minimize the pain experience are essential. To cover the topic of pain management postoperatively in a comprehensive manner, the reasons postoperative analgesia should be optimized, who is at high risk for experiencing severe postoperative pain, and analgesic strategies to manage pain were presented.

OPTIMZING POSTOPERATIVE PAIN RELIEF

Moderate to severe postoperative pain has been ranked by patients as the second worst aspect of surgery, after anxiety. The pain experience not only impairs physical function, but reduces the patient's quality of life and ability to sleep. When patients experience severe pain, they are also more likely to be dissatisfied with the anesthesia services.

The pathophysiological aspects related to severe pain include a higher risk for developing chronic pain and the activation of the surgical stress response, which can affect many body systems and produce poor surgical outcomes. In addition, postoperative pain is associated with a longer hospital stay and its associated costs.

RISK FACTORS FOR SEVERE POSTOPERATIVE PAIN

Patients who are at risk for developing severe postoperative pain should be identified preoperatively so that multidisciplinary interventions can be planned and implemented. Patients who are managed with a patient-centered, collaborative approach tend to have more realistic expectations and be more educated about the strategies to manage their pain.

MANAGEMENT OPTIONS FOR POSTOPERATIVE PAIN

The strategies to manage postoperative pain include pharmacological, psychological, physical, and alternative medical and organizational approaches.

PHARMACOLOGICAL APPROACHES

Currently, pharmacological agents and methods include simple analgesics, opioid analgesics, local anesthetics, ketamine, gabapentinoids, corticosteroids, and $\alpha 2$ adrenoceptor agonists.

Simple Analgesics

Among the simple analgesics are paracetamol, nonsteroidal anti-inflammatory drugs (NSAIDs), and COX-2 inhibitors. The combination of an NSAID and paracetamol has been reported to achieve a 3-fold reduction in pain and the need for analgesic supplementation compared to taking either drug alone. Unless it is contraindicated, this combination should be considered for all postoperative patients (Table 3).

When NSAIDs are given chronically, adverse effects include disruption of the upper or lower gastrointestinal, renal, and cardiovascular systems and of platelet aggregation. The gastrointestinal effects are more likely in patients with previous ulceration, those over age 65 years, those taking anticoagulation treatment concurrently, and when corticosteroids or increasing doses of NSAIDs are being taken. The renal effects are more likely in patients with pre-existing renal impairment, hypovolemia, heart