

## CONTINUING MEDICAL EDUCATION ΣΥΝΕΧΙΖΟΜΕΝΗ ΙΑΤΡΙΚΗ ΕΚΠΑΙΔΕΥΣΗ

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### Oral Medicine and Pathology Quiz – Case 11

A 32-year-old male noticed sensitivity of the gingiva, especially on the palatal side, six days ago, which was accompanied by the development of a low fever. The patient could not correlate the onset of the symptoms with a particular incident except for the incidental use of his wife's toothbrush before a couple of days. In the following two days, the intensity of the symptoms was increased with involvement of larger areas of the maxillary and mandibular gingiva and the fever reached 39 °C. In addition, the patient developed sore throat and dysphagia. He visited his doctor two days ago who performed a hematologic examination revealing an increased white blood cell count ( $13 \times 10^9/L$ ); a urinary test as well as a test for influenza A (H1N1) virus were negative. The patient was prescribed moxifloxacin (400 mg daily) and paracetamol. Although the fever was diminished, the gingival intense sensitivity and sore throat remained limiting patient's ability to eat. The medical history was free. On clinical examination, multiple, confluent, pinhead ulcerations were noticed on the maxillary buccal gingiva and the palatal mucosa, especially on the left side (figures 1, 2); similar lesions were seen on the gingiva of the right maxilla and the mandible as well as on the oropharynx involving the tonsillar pillars bilaterally. Moreover, painful, palpable cervical lymph nodes were discovered. No other oral or skin lesions were noticed. The patient had no history



Figure 1



Figure 2

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of herpetic infection. However, his wife reported episodes of recurrent herpes labialis, the last one occurring within the last 10 days. A course of systemic antiviral drugs (valacyclovir 500 mg twice daily for five days) caused significant improvement within the first three days and complete resolution of the lesions after one week.

#### Comment

*Acute herpetic gingivostomatitis is a primary infection caused by herpes simplex virus-1 (HSV-1) (>90% of the cases) or HSV-2. It is usually seen in children (6 months to 5 years old). However, as many as 80% of primary infections in children have no clinical symptoms or signs significant enough to be recalled, while some cases may also be misdiagnosed as common colds. Adults may be affected if they have not been exposed to the virus before, a phenomenon more frequently seen nowadays due to the improvement of sanitary conditions. Epidemiologic studies indicate that 50–100% of the population will eventually be exposed to HSV.*

The patient reported systemic signs and symptoms (malaise, fever and lymphadenopathy) that may precede the clinical onset of the lesions. The latter consisted of multiple vesicles that rupture, forming small erosions that may coalesce into larger ulcerations. The perioral skin and the vermillion border of the lips may be affected as well as any intraoral surface (keratinized or not). The gingiva is erythematous, enlarged and painful. Acute herpetic infection in adults shows a predilection for involvement of the posterior oral cavity and oropharynx often taking the form of pharyngotonsillitis.

After the remission of the symptoms, the virus remains latent at the ganglia of the sensory nerves, until certain triggering agents, such as stress, fever or exposure to sun or cold, provoke a secondary (recurrent) herpes simplex infection. Asymptomatic viral shedding may also occasionally occur. The most common site of recurrence is the vermillion border of the lips, in the clinical form of herpes labialis. The signs and symptoms of recurrent intraoral disease are typically less severe than the primary infection, with localized involvement of the attached oral mucosa, especially the palatal gingiva. Nevertheless, recurrences in immunocompromised patients may assume an atypical clinical presentation with diffuse involvement of attached and movable mucosa, more protracted clinical course and increased severity, thus mimicking the primary infection.

The diagnosis is usually based on the history, abrupt onset, clinical features and the self-limiting course of the disease. Although a biopsy is not necessary for the diagnosis, the histopathologic features consist of intraepithelial vesicles and characteristic virus-

infected epithelial cells. Serologic tests for HSV-1 or HSV-2, viral culture techniques and clinical tests for HSV antigens or nucleic acids are available but not usually requested.

Herpetic infection, both acute and recurrent, is a self-limited disease with a healing period of 1 to 2 weeks. Complications are rare and include keratoconjunctivitis, esophagitis, pneumonitis, meningitis and encephalitis. Patients must be advised to follow strict hygienic rules, because the infection may spread to other skin sites, most commonly the fingers (herpetic paronychia) or the eyes, causing even blindness. Treatment of the acute herpetic infection includes symptomatic measures; if the disease is diagnosed early, systemic antiviral therapy is advised in order to accelerate clinical resolution. Recurrent herpetic lesions are frequently managed with topical application of antiviral agents. In immunocompromised patients, recurrent infections must be managed more aggressively with systemic medications. In cases of frequent recurrences or association with viral-induced erythema multiforme, long-term preventive systemic antiviral therapy may be warranted.

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