

CONTINUING MEDICAL EDUCATION ΣΥΝΕΧΙΖΟΜΕΝΗ ΙΑΤΡΙΚΗ ΕΚΠΑΙΔΕΥΣΗ

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Oral Medicine and Pathology Quiz – Case 1

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A 58-year-old woman was referred to our clinic for evaluation of diffuse gingival swelling of one month duration. The patient had initially sought advice and treatment by her dentist, who performed scaling, administered antibiotics (amoxycillin and metronidazole) and recommended chlorhexidine mouthrinses without effect. The swelling progressively expanded to diffusely involve the upper and lower gingiva. Spontaneous gingival bleeding and difficulties in chewing and speech ensued. The medical history was unremarkable. Clinical examination revealed diffuse swelling of the free and attached gingiva in the maxilla and mandible, which was more pronounced in the anterior palatal area. The swollen gingiva were of normal color and demonstrated smooth, lobular surface and rubbery consistency (figures 1 and 2). The right tonsil was also swollen and hemorrhagic (fig. 3). Moreover, a mobile, enlarged lymph node was palpated in the right neck. Hematologic examination revealed anemia (Ht 19.8%, Hb 6.1 g/dL), decreased platelet count ($110 \times 10^9/L$) and elevated white blood cell count $13.1 \times 10^9/L$ (PMNs: 1%, lymphocytes: 4%, and atypical cells: 95%).

Comment

The clinical manifestations of leukemia are related to the proliferation of the neoplastic cells in the bone marrow with subsequent suppression of the production and function of normal white and red blood cells and platelets, resulting in anemia, susceptibility to infection and bleeding tendency. The malignant cells may also infiltrate other organs and often cause splenomegaly, hepatomegaly, and lymphadenopathy. The oral cavity represents a common site of leukemic complications, including mucosal and gingival hemorrhage, neutropenic ulceration, candidiasis, and herpetic infections. In addition, the neoplastic cells may infiltrate the oral tissues and produce gingival enlargement, jaw involvement with formation of radiolucent lesions, or a localized soft tissue tumor-like growth, known as granulocytic sarcoma or chloroma. The oral mucosa may also be the site of side effects of the treatment

of leukemia, manifesting as mucositis, infectious and hemorrhagic complications of cytotoxic myelosuppression, or graft-versus-host disease (GVHD) following bone marrow transplantation.

Infiltration of the gingival tissues by leukemic cells may result in generalized gingival enlargement and is more frequently seen with acute myelomonocytic leukemia. The condition may be exacerbated by local factors, such as plaque and calculus, which often accumulate as a result of suboptimal dental hygiene due to the tendency for gingival bleeding. The differential diagnosis of diffuse or generalized gingival swelling should encompass several conditions, including drug-related gingival hyperplasia (e.g. associated with calcium channel blockers, phenytoin and cyclosporine), hyperplastic gingivitis due to local and hormonal factors (e.g. puberty or pregnancy), hereditary diseases (e.g. gingival fibromatosis), or systemic causes (e.g. diabetes, scurvy, Wegener's granulomatosis).

The patient of the present case was, at the time of presentation, unaware of the presence of any systemic disease and otherwise healthy. The oral signs of progressively growing diffuse gingival swelling and spontaneous hemorrhage were the first manifestations of the underlying disease and prompted hematologic evaluation and referral to a hematologist. The bone marrow aspirate established the diagnosis of acute myelomonocytic leukemia and, despite the administration of appropriate treatment, the patient died of disease about 2 months after the initial diagnosis.

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Figure 1



Figure 2



Figure 3

Diagnosis: Acute myelomonocytic leukemia initially presenting as diffuse gingival swelling