Diagnostic Challenge

An unusual cause of gum pain

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ANSWER

The patient illustrated in this case has acute necrotizing ulcerative gingivitis (also known as ANUG, Vincent infection, ulceromembranous gingivitis, or, commonly, "trench mouth"). ANUG is a relatively uncommon periodontal disease characterized by gingival necrosis and ulceration, pain, and bleeding.

A review on the epidemiology of ANUG revealed that the estimated prevalence in the North American population is 0.6%, with a mean age of 23 years and an equal sex distribution.[1] This relatively uncommon periodontal disease affects primarily young white adults. Predisposing factors for the occurrence of ANUG include poor oral hygiene, emotional stress, physical stress, smoking, and an immunocompromised state.[2] There are three primary clinical criteria for the diagnosis of ANUG: 1) acute necrosis and ulceration of the interproximal gingival papilla, 2) pain, and 3) bleeding.[3] The most frequent consequence of an episode of ANUG is the destruction of the gingival papillae and the formation of an interdental gingival crater.[4] Additional clinical findings documented to be associated with ANUG include fetor oris, lymphadenopathy, malaise, fever, and pseudomembrane formation. If left untreated, ANUG can result in rapid destruction of the periodontium. This will occur even more rapidly in the immunocompromised patient. Nevertheless, the prognosis for the disease can be good provided that treatment is started soon after the onset of symptoms and periodontal maintenance therapy is continued long term.

Initial emergency department (ED) management includes ruling out serious nondental conditions (e.g., leukemia, diabetes), addressing predisposing factors (e.g., smoking), initiating early dental referral, and beginning treatment with chlorhexidine rinses. Penicillin and metronidazole are both effective in treating severe ANUG cases.[2] The most effective treatment for ANUG is scaling and root planing.[2,4] Scaling and root planing (also known as deep cleaning) includes the mechanical removal of the etiologic agents (plaque and tartar) that cause inflammation in the periodontium. Cases that are not responsive to scaling alone may require the use of antibiotics in conjunction with local debridement. Additionally, it has been documented that satisfactory results can be achieved when periodic scaling and root planing is combined with daily chlorhexidine rinses.[4]

The patient described here presented with ulcerated and blunted interdental papillae that are characteristic of ANUG. She possessed several of the primary risk factors for the disease: young age (less than 35 years), cigarette smoker, and poor oral hygiene. The patient was prescribed metronidazole (250 mg three times daily for 7 days) and referred to a dentist for definitive management. Four weeks after her ED visit and dentist follow-up, the patient noted marked improvement in her symptoms.

Completing interests: None declared.

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