

Acute Ulcerative Gingivitis : A Case Report of Vincent's Stomatitis in an Immunocompetent Patient

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Abstract: Acute necrotizing ulcerative gingivitis or Vincent's stomatitis is a painful infectious condition of gingiva due to endogenous bacteria. It is an uncommon disease of gingiva, usually seen in patients with impaired immunity, which may be due to some underlying systemic diseases such as HIV infection, malignancy, or diabetes mellitus. Rarely, it is also seen in immunocompetent patients living a stressful life. Here, we report a case of Vincent's stomatitis with the acute ulcerative involvement of gingiva in a general medical practitioner living a busy life.

Keywords: gingivitis; psychological stress; stomatitis;

Introduction

Acute necrotizing ulcerative gingivitis (ANUG) is a rapidly destructive, non-communicable, opportunistic infection caused by endogenous anaerobic microorganisms which is a relatively forgotten disease entity in this era. In developing countries such as Uzbekistan, people have a hectic lifestyle, trying to meet the needs and demands of their family and society. This unknowingly results in increased stress in life. We report a case of Vincent's infection in a medical practitioner due to a stressful lifestyle.

Case Report

A 40-year-old female patient presented with soreness in the gums and teeth, of two days duration. History revealed that the patient had noticed soreness and bleeding from the gums only while brushing for a week. For the last two days the patient had increased soreness in the gums throughout the day, which was aggravated while eating food. She had felt that her back teeth were slightly elevated. She had associated soreness in the tonsils and a fever of 38.9 C for a day. The patient

had consumed Amoxicillin 500 mg twice daily and paracetamol 500 mg for fever. The patient felt no relief after taking the medicines and had observed an increase in the severity of lesions. She also complained of a metallic taste, halitosis and increased salivation. The patient had a hectic lifestyle sleeping an average of six hours per day.



Examination revealed mild fever 37.8 C and 3–4 tender, bilateral submandibular lymph nodes. The intraoral examination revealed halitosis and generalized erythematous tender and enlarged marginal gingiva, more predominant at the mandibular left molar region. Marginal gingiva in the mandibular molar region showed ulcerations and interdental gingiva was enlarged beyond the occlusal

surface, creating a pseudo-pocket, measuring about 6mm in length (Figure 1). All the posterior teeth were tender on percussion.



The patient was tested negative for HIV and hepatitis B. The intraoral periapical radiograph in relation to the lower left molar showed widening of periodontal space at the periapex. The patient was prescribed Metronidazole 400 mg thrice daily together with Amoxicillin 500 mg twice daily for seven days, paracetamol 500 mg for fever s.o.s, warm saline irrigation, povidone iodine gargle thrice daily and chlorhexidine mouthwash 3–4 times per day. After 1 week, symptoms had subsided, but enlarged interdental and marginal gingiva in relation to the lower left second molar were still evident. The culture and sensitivity of the swab specimen showed no isolation of pathogens. As the patient was feeling generalized weakness, she was

supplemented with a multivitamin tablet for a month. After 20 days the gingiva had returned to normal size and patient was feeling completely recovered (Figure 3)



Discussion

Vincent's stomatitis is an endogenous polymicrobial infection mainly affecting patients with impaired immunity. Plaut and Vincent are pioneers who independently, in the 1890's, recognized the fusiform-spirochete association with this disease. Most of the time, the term acute necrotizing ulcerative gingivitis (ANUG) is used to describe the acute ulcerative disease affecting the gingiva, and Vincent's angina is the term used for fusio-spirochetal infection of the oropharynx and throat, with a painful membranous ulceration of the throat. In our patient, tonsils as well as the gingiva were affected, which is a rare occurrence.

The predominant anaerobic organisms currently implicated in ANUG are *Fusobacterium necrophorum*, *Prevotella intermedia*, *Fusobacterium nucleatum*, *Porphyromonas gingivalis*, as well as *Treponema* and *Selenomonas* spp. Many

predisposing factors have been proposed for the pathogenesis of ANUG, such as poor oral hygiene, smoking, emotional stress, nutritional deficiency, systemic diseases or an altered immune system. However, after ruling out all the other causes and understanding the hectic routine due to the heavy work schedule, we concluded that stress was the main underlying factor resulting in ANUG in our patient.

The diagnostic triad for ANUG is pain, gingival ulceration, and bleeding. The secondary clinical signs of ANUG include: halitosis, pseudomembranes, a “wooden” sensation to the teeth, metallic taste, tooth mobility, ropy saliva, lymphadenopathy, fever, and malaise. Though the clinical features vary from patient to patient, some of the most common features were also seen in our patient. Probably, as our patient was immunocompetent, the features of ANUG were not as severe as mentioned in previous studies. The cultures of samples are often negative—because of their fastidiousness, these organisms are difficult to isolate?

The management should focus on removal of microbial accumulation and local factors. Hence, we aimed at the non-surgical management of the condition. Based on the microbial nature, antibiotics such as penicillin and metronidazole are the drugs of choice. Systemic antibiotics, however, do not eliminate local etiological factors. Antibacterial mouthwashes such as 0.12% chlorhexidine are helpful in controlling the infection locally. Usually, surgical debridement and recontouring are recommended after the acute phase has been resolved. However, as our patient was immunocompetent, we opted to wait for recovery before any sort of intervention. Within 20 days the gingiva had returned to normal, avoiding the need for surgical management.

Conclusions

ANUG is a rare disease in immunocompetent individuals. Stressful routines in the developing countries may act as a main predisposing factor, as is evident in this case. This is one of the first cases to report the incidence of ANUG in a financially competent educated patient. This report highlights the need for enough repose for the doctor community who themselves may fall prey to Such diseases if personal care is neglected.