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Deep in the Trenches of Forgotten Diagnoses

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Introduction

Acute necrotizing ulcerative gingivitis (ANUG), or "trench mouth," is a rare, rapidly-progressive periodontal disease[1,2]. Symptoms such as sudden onset of gingival pain, areas of necrosis and ulceration, gingival bleeding, and systemic signs allude to this diagnosis[1,3]. Predisposing factors include immunocompromised state, malnutrition, psychological stress, certain infectious diseases, poor oral hygiene, previous history of ANUG, substance use, and others[1,3]. General prevalence varies but is estimated to be <0.5% in developed countries[3]. Clinical diagnosis is based on presenting symptoms and predisposing risk factors[1]. Acute treatment focuses on controlling tissue damage and patient discomfort to allow for proper nutrition and dental hygiene[1]. If left untreated, relapse and irreversible tissue damage are likely.

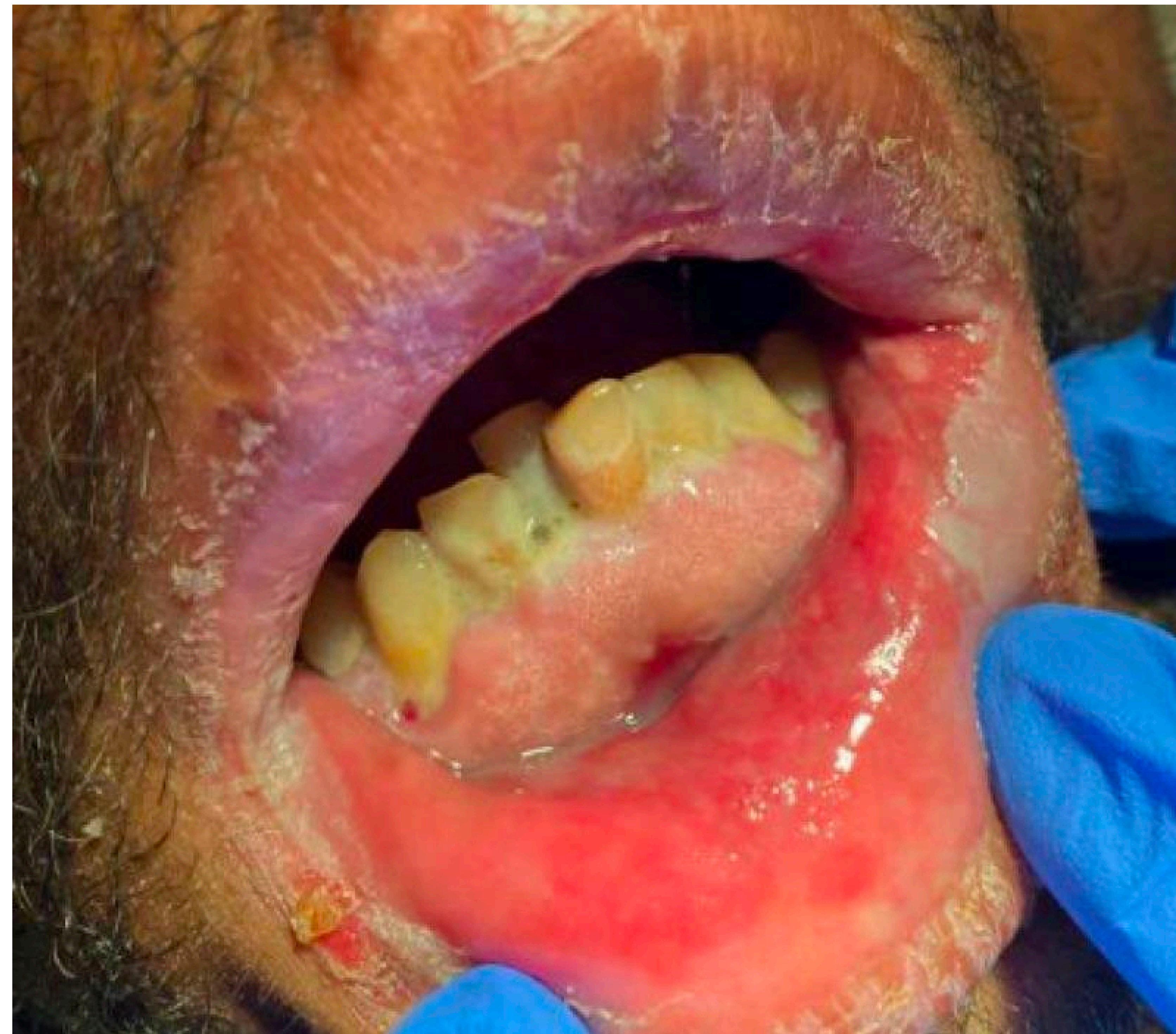
Case Description

A 51-year-old male with a history of substance use presents with mouth pain. He describes gingival pain with dyspnea, myalgias, chills, trismus, and difficulty eating and drinking. Physical exam demonstrates tachycardia, trismus, muffled voice, gingival exudate, extensive caries, leukoplakia, and rancid breath.

Differential Diagnosis

- GINGIVITIS
- HIV
- SYPHILIIS
- VIRAL PHARYNGITIS
- PERITONSILLAR ABSCESS
- RETROPHARYNGEAL ABSCESS

Initial Presentation



Initial presentation of patient's oral cavity with erythema, edema, and gingival exudate

Workup shows leukocytosis, elevated ESR, and negative HIV and syphilis testing. A CT scan of the neck demonstrates extensive caries and reactive cervical lymph nodes. Ampicillin-sulbactam and metronidazole were given, and the patient was admitted. On further review, the patient was noted to have had an episode of ANUG several years prior. Rheumatologic workup for autoimmune etiologies was unremarkable and endoscopy/colonoscopy failed to demonstrate other mucosal lesions. Dentistry recommended outpatient follow up for tooth extraction. The patient's pain and gingival disease improved with continued antibiotics. The patient was discharged on amoxicillin-clavulanate.

Discussion

Recognition and early treatment of ANUG is critical. In this case, our patient had predisposing risk factors with a history of ANUG, substance use, and poor dental hygiene, as well as a classic clinical presentation. The differential considered also included HIV, syphilis, viral pharyngitis, peritonsillar abscess, and retropharyngeal abscess. As several of these diagnoses require timely treatment to prevent adverse outcomes such as destructive periodontal disease, airway compromise, and immunocompromise, differentiating among them is paramount. For ANUG, one must also consider severe dehydration and poor nutrition due to limited oral intake. The opportunity to change this disease course with early initiation of treatment makes this an important diagnosis to have in an emergency medicine physician's arsenal.

Conclusions

ANUG is an uncommon, rapidly progressive, destructive periodontal disease. Recognition is paramount as these patients require systemic antibiotics, timely dental care, and careful consideration of other entities that may appear similar. This clinical diagnosis is a must-know for emergency physicians.

References

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