



## Case Report

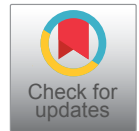
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# Acute Necrotizing Ulcerative Gingivitis with Tongue Ulcer

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## Abstract

We describe our experience with a 21-year-old man who presented with acute necrotizing ulcerative gingivitis with tongue ulcer. The patient underwent urgent gingival debridement to excise the necrotic tissue and remove the dental calculus after ampicillin/sulbactam, metronidazole and chlorhexidine oral rinse. Acute necrotizing ulcerative gingivitis is a rare disease with decreased prevalence. Our understanding of acute necrotizing ulcerative gingivitis remains largely limited and further studies should be needed to explore the exact molecular mechanisms.

## Keywords

Acute necrotizing ulcerative gingivitis, Tongue ulcer, Urgent gingival debridement

A 21-year-old man presented to the emergency department with a 6-hour history of vomiting, epigastric pain and diarrhea after uncooked seafood consumption. He had no documented medical history. Physical examination revealed normal vital signs and mild epigastric tenderness with hypoactive bowel sounds. The rest of the physical exam was unremarkable. Valuable clues were not found by computed tomography of the abdomen and gastroscopy. Laboratory tests of the blood confirmed a white-cell count of 21,300 per cubic millimeter (reference range, 4000 to 10,000). 3 days after admission, he suffered progressive pharyngalgia and pain of gingival surfaces associated with a soaring temperature and

endless drooling of saliva. A physical examination revealed tonsil hypertrophy, pharyngeal edema, dental calculus, and inflammation and necrosis of the lower and upper gingiva with huge tongue ulcer (Figure 1, Figure 2 and Figure 3). Neck and submandibular lymph nodes were not palpable. Direct saliva microbiologic detection and blood cultures were negative for the human immunodeficiency virus, bacterial and fungal pathogens. The patient received a diagnosis of acute necrotizing ulcerative gingivitis (ANUG) with tongue ulcer due to the severe inflammation spread widely from the throat to the soft palate associated with severe gingivitis of both upper and lower gingiva. Further questioning of the patient found that he had never brushed his teeth and denied cigarette smoking, illicit drugs and unsafe sex practices. ANUG is a type of periodontal disease characterized by pain, necrosis, ulceration, and bleeding in gingival surfaces, appeared at much lower rates in the general population, which can cause progressive destruction of the gingivae [1-5]. ANUG is often caused by periodontopathic bacteria, mainly spirochetes and oral anaerobes, which may eventually result in cancrum or is if left untreated, a severe form with gangrenous orofacial



**Figure 1:** Acute necrotizing ulcerative gingivitis with tongue ulcer. Frontal view with closed mouth showed inflammation and necrosis of the lower gingiva.

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**Figure 2:** Acute necrotizing ulcerative gingivitis with tongue ulcer. Frontal view with closed mouth showed inflammation and necrosis of the upper gingiva.



**Figure 3:** Acute necrotizing ulcerative gingivitis with tongue ulcer. Frontal view with open mouth shows redness from the soft palate to the throat, accompanied by huge tongue ulcer.

lesions [6-10]. Empiric antibiotics were changed to ampicillin/sulbactam, metronidazole and chlorhexidine oral rinse on day three of hospitalisation. The patient underwent urgent gingival debridement to excise the necrotic tissue and remove the dental calculus. Since he received ampicillin/sulbactam and metronidazole for a total of 7 days without side effects and oral manifestations improved, the patient denied gingival pain and was discharged home on chlorhexidine oral rinse.

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### Conflicts of Interest

The authors have no conflicts of interest to declare.

### Ethical Statement

The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. Written informed consent was obtained from the patient for publication of this "letter".

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