

# Giant major aphtha

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## Abstract

Major aphthae are usually located on the dorsum of the tongue, the mucosal surface of the lips and the palate. They are large, round or oval ulcers, with a whitish-grey bed, well-defined borders and erythematous halo. They are very often accompanied by severe pain. Major aphthae can take up to four months to heal, often with a scar. Relapses are possible. We present a case of *giant* major aphtha that was previously diagnosed as squamous cell carcinoma.

## Introduction

The dorsum of the tongue, the mucosal surface of the lips, and the palate are a few of the typical locations for major aphthae. Large, round or oval ulcers with a bed that has a whitish-gray color, well-defined borders, and an erythematous halo are the characteristics

of these ulcers. There is a high probability that they are accompanied by acute pain.

## Case Report

A 38-year-old Caucasian man was admitted to our Dermatology Unit with a clinical diagnosis of squamous cell carcinoma (SCC) of the dorsum of the tongue. The patient stated that he was in good general health, that he was not in therapy with systemic drugs and that he was a heavy smoker since the age of 16. He also declared that the lesion had appeared approximately six weeks before and was accompanied by severe pain. The patient was unsuccessfully treated at another center with chlorhexidine mouthwashes. Stomatological examination showed a wide ulcer, with necrotic bed and well-defined, hypertrophic borders, located on the left portion of the upper surface of the tongue (Figure 1).

General physical examination did not reveal anything pathological. In particular, no regional lymphadenopathy was observed. Dental examination revealed a decay at the 5<sup>th</sup> tooth of the upper right arch. Laryngological examination was negative. Laboratory examinations showed leukocytosis and increase in erythrocyte sedimentation rate. RPR and FTA-ABS tests were negative. Culture was negative for *Treponema pallidum*. Bacteriological examination was positive for *Streptococcus sanguinis*. Cultures for mycobacteria were negative. Direct and cultural mycological examinations were negative. Histopathological examination showed an ulcerated mucosa associated with an inflammatory infiltrate consisting mainly of neutrophils (Figures 2-3).

Collagen fibers appeared fragmented. No viral inclusion bodies or hyphae were found. This histopathological picture suggested an acute inflammatory process with ulceration. Our final diagnosis was “giant” aphtha major. The patient was treated with betamethasone (3 mg/day of soluble tablets for mouthwashes), prednisone (starting daily dosage: 37.5 mg/day), omeprazole (20 mg/day) and tramadol (150 mg/day). An almost complete remission of pain was reported within one week. Complete remission of the ulcer was observed within four weeks. The follow-up (24 months) was negative.

## Discussion and Conclusions

Major aphthae, also known as Sutton’s ulcers, major aphthous ulcers, major recurrent aphthous stomatitis and periadenitis mucosa necrotica recurrens, are uncommon, large (sometimes >1 cm), round or oval ulcers, with a whitish-grey bed, well-defined borders and erythematous halo. The most frequent locations are the upper surface of the tongue, the mucosal surface of the lips and the soft palate. Major aphthae usually heal within four months, often with a scar. Pain is very often severe. Relapses are possible.<sup>1</sup> In our patient, a clinical diagnosis of SCC of the tongue was possible for

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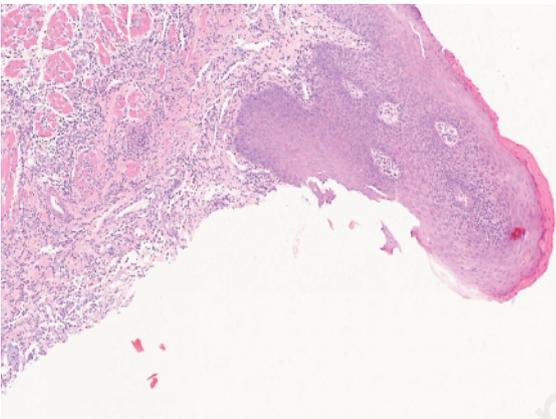
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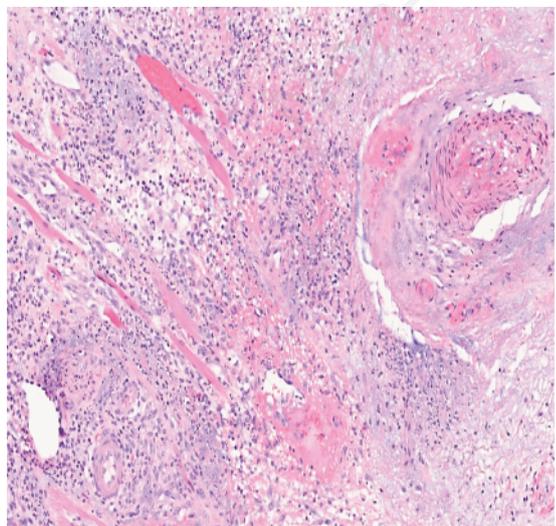
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**Figure 1.** Wide, necrotic ulcer on the upper surface of the tongue.



**Figure 2.** Mucosal section with ulceration and inflammatory infiltrate. Hematoxylin-eosin stain.



**Figure 3.** Inflammatory infiltrate mostly composed of neutrophils. Lymphocytes and neutrophils occupy the superficial and deep sub-mucosal tissue with a perivascular and interstitial pattern. Hematoxylin-eosin stain.

two reasons: i) the patient was a heavy smoker since adolescence; ii) the morphology of the lesion was compatible with SCC. However, the main symptom of the patient was very severe pain, for which he required repeated and strong analgesics: this feature is not typical of SCC.<sup>2</sup> Histopathological examination excluded SCC, showing an acute inflammation. An infectious etiology was also considered. A swab was positive for *Streptococcus sanguinis*, but these bacteria are considered as normal saprophytes of the oral cavity.<sup>3</sup> Negative mycological examinations excluded a fungal etiology. Although extremely rare in the oral mucosa, pyoderma gangrenosum was a possible differential diagnosis, especially histopathologically (mucosal ulceration and inflammatory infiltrate in the connective tissue). However, the absence of lymphocytic vasculitis, pseudoepitheliomatous hyperplasia and extravasated erythrocytes were against this diagnosis.<sup>4</sup> Histopathological features of aphthae are epithelial necrosis, ulceration and inflammatory infiltrate rich in neutrophils: all these features were present in our patient. The clinical presentation is also consistent, and a prompt response to the therapy and long remission confirm this diagnosis.<sup>5,6</sup> This is the largest major aphtha we observed from 1987 at our dermatology unit.

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