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## Oro-genital aphthous stomatitis: A case of mistaken herpes simplex virus type 2

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### Abstract

Aphthous stomatitis can affect up to 60% of the population. The clinical presentation can be similar to other causes of oral ulceration such as Herpes Simplex Virus. As a result, clear indications of each must be diagnosed appropriately. I report a case of a 28-year-old female with oro-genital aphthous stomatitis misdiagnosed with Herpes Simplex Virus Type 2. The appropriate workup and treatments for aphthous stomatitis are discussed.

**Keywords:** Aphthous stomatitis, herpes simplex virus

### Introduction

Aphthous stomatitis affects anywhere from approximately 1 to 60% of the general population<sup>[1]</sup>. Although the etiology of aphthous stomatitis is not yet known, there are several triggers that influence the presentation of these ulcers. Factors such as stress, hormones, food, vitamin deficiencies such as folic acid, vitamin B12, iron and traumatic injury to the mucosa are associated with aphthous stomatitis<sup>[2]</sup>. Systemic syndromes such as Behcet's disease, periodic syndrome with pharyngitis and fever, neutropenia, Crohn's disease and Mouth and Genital Ulcers with Inflamed Cartilage (MAGIC Syndrome) feature aphthous stomatitis as a symptom<sup>[3]</sup>. The ulcers are shallow and painful with an erythematous border and a gray to yellow base. Furthermore, the Donatsky classification of aphthous stomatitis in 1978 stipulates four categories: 1) Stomatitis aphthosa recurrens, 2) Stomatitis aphthosa recurrens cicatricans, 3) Stomatitis aphthosa recurrens herpetiformis and 4) Muco-ocular with aphthous-like stomatitis<sup>4</sup>. The WHO classification of aphthous stomatitis indicates stomatitis aphthosa recurrens as minor ulcers, stomatitis aphthosa recurrens cicatricans as major ulcers, stomatitis aphthosa recurrens herpetiformis as herpetiform ulcers and has reclassified muco-ocular with aphthous-like stomatitis as its own entity of Behcet's Disease<sup>[4]</sup>. Patients afflicted with these ulcers are likely to experience a recurrence at some point in time.

### Case Report

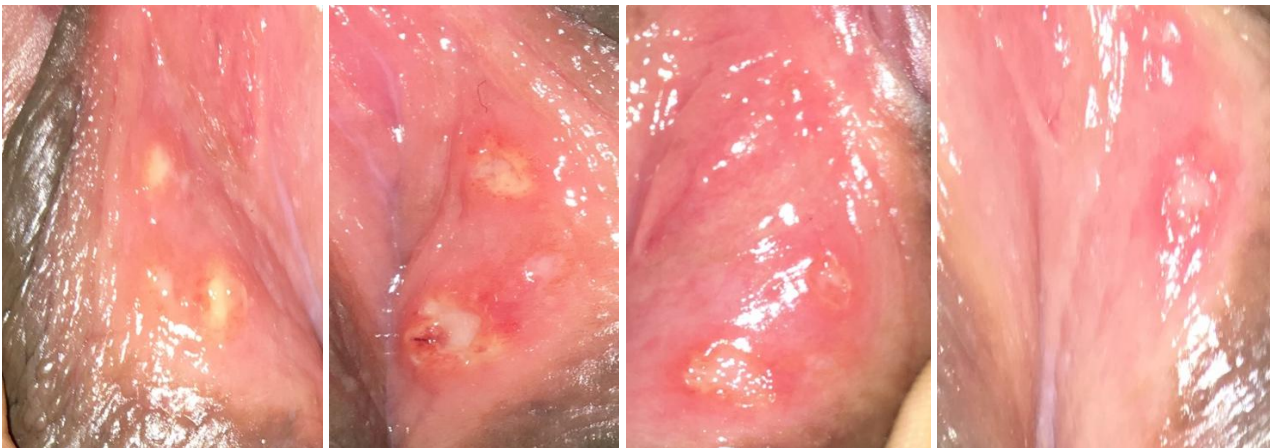
A 28-year-old female presented with a 24-hour history of genital ulcerations. She denied discharge, bleeding, dysuria but reported vulvar pain upon urination. The patient had a history of oral mucosal ulceration presenting 24 hours prior to the genital ulceration with malaise, tingling sensations in the oral mucosa, muscle aches and a low-grade fever. History obtained was unremarkable except for a 7-pack year history of smoking and ten lifetime sexual partners with an intermittent use of barrier contraception. Clinical examination showed multiple clustered shallow yellow ulcerations with an erythematous halo. She used salt water rinses and topical lidocaine without relief. The progression of the ulceration is shown below (Figure 1 and Figure 2). The patient reported to a funded STD clinic where Herpes Simplex Virus Type 2 was diagnosed. The patient was given a 10-day therapeutic regimen of Valacyclovir 1g PO BID and lidocaine gel 2%. The patient experienced relief within 10 days but suffered a recurrence in 32 days. Upon returning to the clinic where a culture swab and HSV blood test was performed, the patient's diagnosis was revised to recurrent aphthous stomatitis with oro-genital presentation.

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**Fig 1:** The progression of oral aphthous stomatitis during a 7-day period.



**Fig 2:** The progression of genital aphthous stomatitis during a 7-day period.

### Discussion

Aphthous stomatitis is usually diagnosed on the basis of clinical examination only. Herpetiform ulcers may mimic some of the characteristics of Herpes Simplex Virus with presentations on the labial mucosa, oral mucosa and pharynx with outbreaks of anywhere from 10 to 100 lesions lasting less than one month [5]. Herpes Simplex Virus is usually diagnosed clinically and additional testing such as culture of lesions and blood tests may be performed to support the diagnosis. The differentiation between these two pathologies is important to avoid unnecessary patient apprehension, avoidance of improper treatment and conduction of appropriate work-up. The general clinical work-up for aphthous stomatitis includes a complete blood count and additional testing of ferritin, folate, iron and vitamin B12 levels. Additional history and work-up may be needed in the presence of other symptoms in order to determine if aphthous stomatitis is secondary to a systemic disease. The first line treatment of aphthous stomatitis includes topical considerations with adhesive properties. Topical steroids such as triamcinolone 0.05%-0.5%, fluocinolone 0.05% and clobetasol 0.025% are used. Topical antiseptics such as chlorhexidine mouthwash 0.2% and triclosan gel as well as topical anesthetics such as lidocaine gel 2% are commonly used [6]. In instances where aphthous stomatitis is severe and recurrent, second line therapies such as Thalidomide 50mg/day and Levamisole 10-15 mg/day may be beneficial [7]. In several oro-genital ulceration, therapies such as Colchicine 1-2 mg/day, Azathioprine 1-2 mg/kg/day and Methotrexate 3-6 mg/kg/day can be efficacious [8]. Many

patients have reported anesthetic relief using magic mouthwash which is a combination of diphenhydramine, lidocaine, nystatin, corticosteroids, magnesium or aluminum hydroxide and sucralfate [8]. Furthermore, patients have been known to self-treat these ulcerations with toothpastes lacking sodium lauryl sulfate which is a common ulcer irritant, alum, a pickling agent and turmeric, a natural powder derived from a root with healing properties.

### Conclusion

Aphthous stomatitis may be confused for Herpes Simplex Virus. As a result, proper care must be taken to clinically diagnose the problem and provide the appropriate follow-up testing and therapeutic regimens.

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