Management of nonsexually acquired genital ulceration using oral and topical corticosteroids followed by doxycycline prophylaxis

Shreya Dixit, B Med Sci, MBBS (Hons),[a] Jennifer Bradford, MBBS, FRANZCOG,[b] and Gayle Fischer, MBBS (Hons), FACD[a]
Sydney, Australia

Background: Data regarding the treatment of nonsexually acquired genital ulceration (NSAGU) are limited.

Objective: We sought to provide evidence for the safety and efficacy of topical and systemic corticosteroids followed by doxycycline prophylaxis for acute and recurrent NSAGU.

Methods: A retrospective chart review was conducted of patients with NSAGU treated in a private dermogynecology practice.

Results: A total of 26 girls and women with NSAGU were identified and divided into 2 groups: group A = 17 patients with moderate to severe ulceration treated in the acute stage with oral corticosteroid; and group B = 9 patients with mild ulceration treated in the acute stage with topical corticosteroid. Patients in group A, with a mean age of 27.9 years (range, 11-62 years), were treated with oral prednisolone commencing with 15 to 50 mg per day depending on severity. Sixteen (94%) achieved rapid pain relief and complete healing of ulcers within 16 days. Eight (47%) commenced doxycycline prophylaxis. Women in group B, with a mean age of 42.5 years (range, 26-67 years) were treated with topical corticosteroids. Eight (89%) had a history of recurrent ulcers and 6 (66%) commenced doxycycline prophylaxis. Of all 14 patients on doxycycline prophylaxis, none reported any recurrences during a mean follow-up of 18.3 months. There were no adverse effects caused by prednisolone. One patient experienced mild photosensitivity from doxycycline but continued to take it.

Limitations: This was a retrospective case series from a single private practice—based population.

Conclusion: Topical or oral corticosteroids followed by prophylactic doxycycline can be effective in rapidly resolving acute flareups and preventing recurrences of NSAGU. All patients responded to therapy without treatment-limiting side effects. (J Am Acad Dermatol 2013;68:797-802.)

Key words: aphthous ulcer; corticosteroid; doxycycline; genital; vulvar.

Nonsexually acquired genital ulceration (NSAGU) (previously known as complex aphthosis) is an uncommon cause of acute, severely painful genital ulceration in women. The ulceration may be preceded by a flu-like prodrome and has been linked with viral infections, Epstein-Barr virus being the most commonly reported.[1] The exact origin is still unknown, however it is a benign condition that may present as an acute or recurrent but not progressive event. No consistent treatments protocols have been described. Our aim is to present a treatment regimen that we have found to be simple, consistently effective, and safe using potent topical corticosteroid or oral prednisolone in the acute

From the Northern Clinical School, University of Sydney,[a] and University of Western Sydney, Campbelltown.[b]
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Reprint requests: Shreya Dixit, B Med Sci, MBBS (Hons), Department of Dermatology, Level 11C, Royal North Shore Hospital, St Leonards, NSW, Australia 2065. E-mail: sdixit177@gmail.com.
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phase followed by doxycycline prophylaxis. We present a case series of 26 consecutive female patients with vulvar aphthosis who have been successfully managed using these treatment principles.

METHODS

Study design and patients

The computerized database (Genie Solutions, Brisbane, Australia) of the senior authors' (G. F. and J. B.) private practice was searched for consecutive patients with a diagnosis of aphthous ulceration between January 2003 and April 2012. The case definition was acute and/or recurrent genital ulceration with the typical morphology of aphthosis (punched out painful single or multiple discrete ulcers of sudden onset with a yellow base and red areola) where infection had been ruled out. Patients were described as having mild (3- to 10-mm ulcers, superficial), moderate (>10-mm ulcers, superficial), or severe (>10-mm ulcers, deep) disease. Twenty-six patients were identified who met the case definition. Patients were divided into 2 groups. Patients in group A (n = 17) had moderate to severe aphthosis, were unable to walk or urinate without pain, and were treated with oral prednisolone. Patients in group B (n = 9) had mild aphthosis, were uncomfortable but able to function normally, and were treated with topical potent corticosteroids. A total of 14 patients (8 from group A and 6 from group B) were subsequently treated with doxycycline prophylaxis.

Data collection

The following data on each patient were collected: age, acute versus recurrent aphthae, duration of recurrences, previous oral aphthae, prodrome before presentation, bacteriology, severity of ulcers, treatment type and duration, time for lesions to heal, side effects of medications, whether doxycycline and/or topical corticosteroids were commenced, duration of follow-up, and occurrence of relapses. Patients' clinical data were entered into a spreadsheet (Excel, Microsoft Corp, Chicago, IL) and descriptive statistics were calculated using software (SPSS Statistics 17.0, IBM Corp, Armonk, NY). Institutional ethics approval was not required as all patients were sourced from a private practice and the data de-identified.

CAPSULE SUMMARY

- Nonsexually acquired genital ulceration is an uncommon, benign cause of vulvar ulceration in girls and women. There are no formal treatment guidelines for this condition.
- A regimen of oral prednisolone or topical corticosteroids in the acute phase, followed by doxycycline prophylaxis is very safe and effective in the management of this condition.
- Nonsexually acquired genital ulceration is often misdiagnosed and over-investigated. Our guidelines will assist practitioners in controlling flareups and preventing recurrences.

CASE REPORTS

Case 1: Acute NSAGU

A 15-year-old girl presented to the emergency department with a 3-day history of vulvar ulcers preceded by a flu-like prodrome. Investigations included full blood cell count, urea and electrolytes, liver function tests, C-reactive protein, erythrocyte sedimentation rate, vitamin B12 level, folate, iron studies, celiac disease antibodies, and Epstein-Barr virus and hepatitis serology. These revealed an increased white blood cell count of 15.2×10^9/L, a C-reactive protein of 80 mg/L, and erythrocyte sedimentation rate of 53 mm/h. All other results were within normal limits. Viral and bacterial swabs revealed negative findings. She was discharged home on analgesia and saline bathing.

Her general practitioner contacted the pediatric dermatologist 2 days later stating she was in severe pain and having difficulty mobilizing and urinating. Prednisolone (50 mg) was started and the case was reviewed by the dermatologist the next day. On examination, she had multiple deep vulvar ulcers with a yellow base typical of NSAGU (Fig 1). At the time of review, she had not passed urine in over 12 hours and required admission for insertion of an indwelling catheter and analgesia. She continued the prednisolone at 50 mg daily and by day 5 of admission, the ulcers were healing well. The indwelling catheter was removed, and she was able to pass urine without any pain. After 7 days, the prednisolone was reduced to 25 mg daily, and at review on day 14, her ulcers had completely healed. Prednisolone was ceased and she was discharged but advised to contact our service immediately if there was a recurrence. At 3-month follow-up she remained well.

Case 2: Recurrent NSAGU

A 22-year-old woman was referred with a history of oral and vulvar aphthous ulceration occurring randomly every 2 months for the past 6 years. Previous blood tests and viral and bacterial swabs all produced normal or negative findings, and she