Melkersson-Rosenthal syndrome of the vulva

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Key words: Crohn's disease; Melkersson-Rosenthal syndrome; vulvitis granulomatosa.

INTRODUCTION

Melkersson-Rosenthal syndrome (MRS) is a granulomatous neuromucocutaneous disorder that is most commonly associated with the orofacial region.[1] MRS is classically characterized by episodic lip swelling, facial nerve palsy, and the development of deep tongue grooves. Majority of patients present with one or two of these symptoms, and diagnosis does not depend on the presence of all three.[2] Occasionally, MRS presents with genital rather than orofacial involvement. The vulvar variant of MRS is referred to as vulvitis granulomatosa.[3] Biopsy of a lesion reveals noncaseating epithelioid cell granulomas, which is the histopathological finding associated with Crohn's disease. MRS typically presents during the second decade of life, and it is three times more common in females.[4] The prevalence is reported to be around 0.08%, but it is often underdiagnosed.[4]

Abbreviations used:

GI: gastroinestinal
MRS: Melkersson-Rosenthal syndrome

CASE REPORT

A 26-year-old female presented to a clinic for evaluation of vulvar swelling. She has a history of systemic lupus erythematous marked by stage V lupus nephritis, Raynaud-like discoloration of the hands, and malar rash. Her lupus nephritis was previously treated with mycophenolate mofetil and high-dose prednisone, and it has now been in remission for years. She denies having a history of Crohn's disease, ulcerative colitis, irritable bowel syndrome, hematochezia, or constipation. She also has no family history of Crohn's disease or related bowel disorders. Her current medication regimen includes a combination oral contraceptive, loratadine, hydroxychloroquine 200 mg, prednisone 5 mg, and a daily multivitamin.

She first noticed swelling and enlargement of her left labium about 5 to 6 m ago. She described the growth as slow and steady. She denied any associated pain or pruritus of the labia or inguinal region. She trialed several medications to treat the swelling including clobetasol cream, oral fluconazole, and a 28-day 40 mg prednisone taper with minimal to no improvement. She believes the clobetasol cream was the most helpful. A previous biopsy of the left labium minus revealed reactive squamous epithelium with submucosal lymphoplasmacytic infiltrate. Physical examination revealed thickening and enlargement of the left labium minus with significant firmness and induration (Fig 1). Swelling did not extend to the labia majora or perianal region. Regional lymph nodes were not palpable.

The patient opted for a repeat biopsy, and a punch biopsy of the left labium minus was performed in the clinic. This biopsy revealed collections of multinucleated giant cells surrounded by lymphoplasmacytic inflammation. Focal polarizable crystalline-like material was identified within the giant cells. Surrounding dermal edema was also noted. Periodic acid-Schiff, Grocott's Methenamine Silver, Acid-Fast Bacilli, and Fite's acid fast stains were negative for microorganisms. An immunostain for spirochetes was also negative. Pathology was consistent with a granulomatous process.

Her clinical presentation and biopsy findings supported the diagnosis of vulvitis granulomatosa. She was prescribed minocycline 100 mg twice per day for 14 days. The patient was made aware of potential side effects including worsening of lupus and gastrointestinal (GI) disturbance. She was also referred to GI physician for further workup to rule

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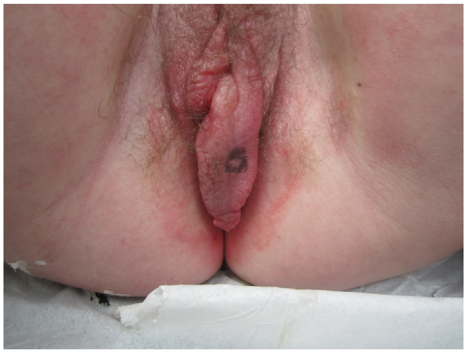

Fig 1. An image showing the thickening and enlargement of the left labium minus at her initial appointment.

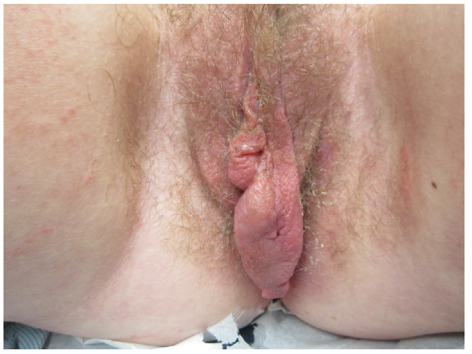

Fig 2. An image taken at her 1-month follow-up appointment when she endorsed a subjective improvement in the swelling of the left labium minus.

out Crohn's disease. Given her absence of GI symptoms and normal fecal calprotectin test, a colonoscopy was deemed unnecessary. The consulting GI physician said that if any GI symptoms arise in the future, she should undergo a colonoscopy at that time.

At her 1-month follow-up appointment, she endorsed mild improvement in her labial swelling since starting the minocycline. Physical examination still revealed thickening of the left labium minus with significant induration (Fig 2). The patient remained asymptomatic, denying any associated pain or pruritus in the labial region. Intralesional Kenalog 10 mg/mL 1 mL was administered in the left labium during this appointment with plans to repeat the injection at her next visit. She was told to continue minocycline 100 mg twice per day. Given her minimal improvement, the possibility of a debulking surgery or starting adalimumab in the future was also discussed. After her second round of Kenalog injections, her left labium minus was markedly softer although still enlarged. Given her prolonged minocycline use, a comprehensive metabolic panel was obtained at her second follow-up visit to monitor her liver and kidney function. These laboratory test results were within normal limits, and the decision was made to continue minocycline and the intralesional Kenalog injections until swelling subsided.

DISCUSSION

MRS of the vulva is a rarely reported phenomenon. The etiology of MRS and vulvitis granulomatosa remains unknown. Patients often present with acute inflammation that eventually follows a chronic relapsing-remitting course.[5] When a patient presents with vulvar swelling, the differential diagnoses include Bartholin abscess, hidradenitis suppurativa, angioedema, infection, or foreign body reaction; many of which can be ruled out based on histological features. Histology of a MRS lesion reveals collections of Langhans giant cells within a background of lymphoplasmacytic dermal inflammation.[2] Reports in the literature also reveal that the presence of polarizable crystalline-like material within the giant cells may be specific to vulvitis granulomatosa.[5] Treatment options for MRS include nonsteroidal anti-inflammatory drugs, corticosteroids, antibiotics, and immunosuppressants. A specific treatment protocol has not yet been established. Intralesional Kenalog or a combination of steroids and minocycline are two common first-line treatment options.[6] Surgery is only indicated in patients with significant disfigurement.

An association between cutaneous granulomatosis and Crohn's disease has been increasingly acknowledged.[7] In fact, many advocate for routine screening of the GI tract after a diagnosis of MRS or other associated granulomatous cutaneous disorders, even in the absence of bowel symptoms. Oral manifestations, such as cheilitis granulomatosa, are more commonly reported and found to precede the GI symptoms associated with Crohn's disease.[7]

This case brings attention to the rare presentation of MRS in the vulva. The association between vulvitis granulomatosa and Crohn's disease must be recognized and considered when formulating a treatment plan. If symptoms are significant, there is a low threshold for further exploration to determine if there is internal involvement.

Conflicts of interest

None disclosed.

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