

A case of vulvitis granulomatosa



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INTRODUCTION

Vulvitis granulomatosa (VG) is 1 of the 3 clinical entities of anogenital granulomatosis, characterized by lymphedema and noncaseating granulomas. It is considered a rare idiopathic condition, typically presenting with chronic, painless swelling of the genitals.¹ There are very few cases reported worldwide and none in the Middle East, to our knowledge. Its etiology is unclear, although a relationship with sarcoidosis and granulomatous infections such as tuberculosis have been suggested. Association with Crohn's disease is being increasingly recognized based on histologic similarities between these conditions.²

Here, we report a case of VG without other associated clinical manifestations, with more than 3 years of delayed diagnosis and negative colonoscopy results for Crohn's disease, as the first documented case in the Middle East.

CASE REPORT

A 53-year-old woman was admitted to the medical ward with a 3-year history of vulvar swelling and labial induration associated with cutaneous swelling of the groin, with no precipitating or aggravating factors. There was no discharge, dyspareunia, fever, or urinary burning. There was no history of weight change, vomiting, pruritus, diarrhea, or abdominal pain. The patient reported 2 colonoscopies with biopsy and a barium meal during the last 3 years, the results of which were all negative. Furthermore, she reported 9 caesarian births, with the last 10 years ago, followed 5 years later by total abdominal hysterectomy. Otherwise, she denied any history of oral ulcers, joint pain, joint swelling, myalgia, or stiffness. Ophthalmologically, the patient had no history of

Abbreviations used:

CG: cheilitis granulomatosa
VG: vulvitis granulomatosa

ophthalmalgia, eye redness, photophobia, blurred vision, increased lacrimation, floaters, or uveitis. She did not complain of chest pain, shortness of breath, cough, or hemoptysis. Family history indicated a mother of 10 healthy children living with her husband, who had no urogenital symptoms.

Clinical examination showed a patient in a good general condition with normal vital signs. Genital examination showed brownish, indurated, firm, coalescing nodules encircling the vulva, in addition to skin-colored, serpiginous, firm plaques affecting the pubic area, most likely representative of infiltrated/fibrosed lymphatic vessels (Fig 1). Gastrointestinal examination showed no abdominal tenderness, pain, or mass, and inspection of the perineum showed no anal fistula, ulcer, abscesses, or scarring. There were no pulmonary or cardiovascular findings on examination. The rest of the clinical examination results were unremarkable.

The patient was referred to the dermatology clinic for a specialist opinion. The lesion was described by the dermatologist as a verrucous, skin-colored tumor encircling the labia majora, with fibrosis of surrounding lymphatic. Presumable diagnoses were cutaneous Crohn's disease, deep fungal infection, cutaneous tuberculosis, verruciform xanthoma, hidradenitis suppurativa, or verrucous carcinoma.

Results of a purified protein derivative skin test were negative. Differential complete blood count; liver function test; coagulation profile; levels of

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Fig 1. Verrucous lesion encircling the vulva, with markedly indurated labia majora.

urea and electrolytes including calcium level; and titers of anti-nuclear antibody, double-stranded DNA, angiotensin-converting enzyme, and 1,25-dihydroxyvitamin D levels all showed normal results. Chest, abdomen, and pelvis computed tomography scan were performed and showed normal results.

Vulvar biopsy showed scattered dermal, non-caseating epithelioid granulomas, surrounded and infiltrated by lymphocytes, with no polarizable foreign material (Fig 2, A and B). Histochemistry using Grocott-Gomori methenamine silver, periodic acid-Schiff, and Ziehl-Neelsen stains showed no fungal elements or acid-fast bacilli.

An endoscopy was ordered to screen for associated Crohn's disease. Because results of the past 2 colonoscopies with biopsy and barium meal were negative, the diagnosis indicated vulvitis granulomatosis without clinical or paraclinical evidence of Crohn's disease.

The patient was treated with 200 mg oral hydroxychloroquine once daily and 20 mg oral prednisone once daily. Six weeks later, there was an improvement in symptoms, including reduction of the vulvar inflammation and the zone of the vulvar induration.

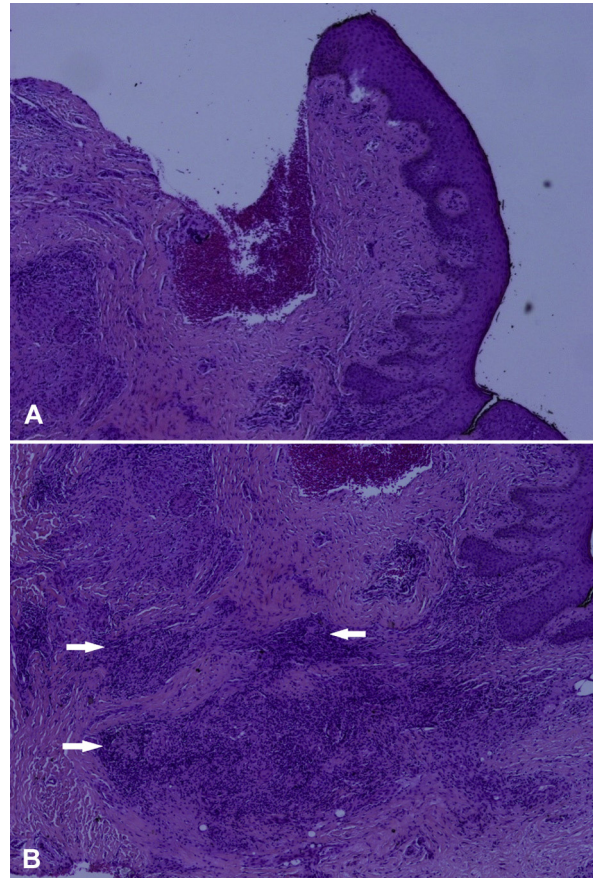


Fig 2. A, Scattered dermal noncaseating epithelioid granulomas surrounded and infiltrated by lymphocytes. B, Vulvar biopsy showing scattered dermal noncaseating epithelioid granulomas surrounded and infiltrated by lymphocytes (arrows), with no polarizable foreign material.

DISCUSSION

Differential diagnosis with Crohn's disease

Rarely, anogenital granulomatosis may be the only sign of underlying Crohn's disease, which makes diagnosis more difficult and necessitates further investigations.¹ Other skin manifestations of Crohn's disease include orofacial granulomatosis, which may be concomitant with anogenital forms as part of the systemic-like chronic inflammatory disorder.³⁻⁶

In the present case, no clinical or paraclinical evidence of a systemic-like Crohn's disease was found; the diagnosis of VG was made on the typical nonnecrotizing granulomatous infiltrations. Previous publications have reported the constant association of VG with Crohn's disease. VG has also been reported in Melkersson-Rosenthal syndrome, which is associated with cheilitis granulomatosa (CG), facial palsy, and plicated tongue.⁷ A significant association of CG with Crohn's disease has been observed, with

CG being the first symptom of Crohn's disease.^{8,9} On the other hand, the risk of developing Crohn's disease among patients with CG is considered low.¹⁰

Differential diagnosis with sarcoidosis

The other important differential diagnosis was sarcoidosis. Sarcoidosis is a systemic granulomatous disease that can damage any organ. Markedly, the most common involvement is the pulmonary system and hilar lymph nodes; however, other locations such as the skin, eye, liver, heart, and peripheral lymph nodes are affected in 10% to 30% of cases.¹¹ The involvement of the female genital tract is infrequent and has been reported in fewer than 1% of cases.¹² In the present case, no pulmonary, cardiovascular, or other systemic involvement was found through history or on examination, as well as no lymph node involvement. Additionally, the fundamental investigations for sarcoidosis, which included calcium level, angiotensin-converting enzyme, and 1,25-dihydroxyvitamin D levels, were all within normal ranges. Further, chest radiography showed no hilar lymphadenopathy, and computed tomography of the chest, abdomen, and pelvis showed no abnormal images, thus ruling out sarcoidosis.

Therapeutic aspects

In addition to the symptomatic approach, treatment of granulomatous diseases such as CG and VG targets the inflammatory and autoimmune components of the disease. This involves the use of immunomodulatory drugs and efficient anti-inflammatory agents, including corticosteroids.¹⁰ Both systemic and topical routes have been used. However, there are no clear recommendations about the treatment strategy, and evidence-based data regarding the efficacy of the different treatment options are poor.

Hydroxychloroquine, a drug more frequently used for the prevention and treatment of malaria, has shown good efficacy in systemic autoimmune diseases. It has also shown good efficacy in the treatment of CG.¹⁰ In the present case, the use of hydroxychloroquine resulted in a significant clinical

improvement of inflammation and reduction of the size of the lesion. Another treatment option includes the use of anti-tumor necrosis factor monoclonal antibodies such as infliximab and adalimumab, which have shown good results, notably in refractory cases.⁹ Finally, surgical options should be considered for severe cases with significant aesthetic deformations.¹⁰

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