CLINICAL VIGNETTE

A Case of Non-infectious Genital Ulceration

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History

A 33-year-old female with a history of depression, anxiety, polycystic ovarian syndrome, and pituitary adenoma presented to urgent care with genital ulcers for one day. She complained of vaginal irritation and burning during urination. Symptoms started acutely after a trip to San Diego. During her trip she reported having intercourse in a jacuzzi but denies any other relevant history prior to the onset of her symptoms. She denied feeling ill, nor did she complain of any infections, fevers, or chills. Patient had been monogamous with a male sexual partner. She had a history of genital warts which had resolved prior to this visit, but denies history of sexually transmitted infections (STIs). She was prescribed ciprofloxacin for a positive urinalysis and started on valacyclovir for a suspected herpes infection.

She followed up two days later in a different urgent care, stating that she had no improvement despite compliance with the prescribed medications. A genital swab was sent for herpes simplex 1 and 2, as well as vaginal swabs which returned positive for bacterial vaginosis and yeast. The patient was told to continue ciprofloxacin and valacyclovir and fluconazole and metronidazole were also prescribed. The swab for herpes virus returned negative for types 1 and 2. All other results returned negative including testing for chlamydia, gonorrhea, syphilis, and HIV.

Four days after symptoms began, patient followed up with her primary care doctor for a third urgent care visit as symptoms were still not improving. She had been compliant on all prescribed antibiotics and valacyclovir. Patient appeared to be in significant pain and was anxious during interview. On examination, she had multiple 3-4mm ulcers in various stages of ulceration with scabbing and erythema involving lower mons, labia, and surrounding vulva. Bilateral introitus ulcers were noted with 2-3cm ulcerations. The rest of her physical examination was unremarkable. By that visit, the patient had completed four days of valacyclovir and ciprofloxacin, two days of metronidazole, and a course of fluconazole. A swab was sent for bacterial culture and for varicella. The bacterial culture showed few yeast and the varicella culture returned negative.

Five days after initial presentation, the patient was prescribed prednisone 20mg daily for suspected non-infectious or autoimmune lesions. On the same day, she followed up with gynecology who agreed that symptoms were likely not infectious based on history, lab studies, and lack of response to treatment regimen. Prednisone was increased to 40mg daily. Patient followed up with gynecology one week later and noted significant improvement in lesions and pain. Prednisone was tapered to 20mg for one additional week and then stopped. On follow up with her primary care doctor one week later, she had complete resolution of symptoms.

Discussion

The global incidence of genital ulcer disease is estimated to be more than 20 million cases annually. HSV-1 and HSV-2 are the most common causes, followed by syphilis and chanchroid. The primary care provider should be aware of other infectious causes of genital ulcers which include lymphogranuloma venereum, granuloma inguinale (donovanosis), secondary bacterial infections, and fungi. Ulcers in primary syphilis (chancre), lymphogranuloma venereum, and granuloma inguinale are usually painless, whereas chancroid ulcers and herpetic genital ulcers are usually painful. Appropriate STD screening (gonorrhea, chlamydia, and HIV) should also be considered.[1,2]

Lipschutz ulcer or ulcus vulvae acutum is an uncommon and non-sexually transmitted disease characterized by painful ulceration of the vagina and vulva. This condition is common in women and may be preceded by mononucleosis or influenza-like symptoms including fever, malaise, and nausea. Some women may present with concomitant oral apthous ulcers although there does not appear to be a link between these two types of ulcers.[3]

The etiology is generally unknown, but case studies have reported history of co-infection with Epstein Barr Virus.[4] Isolated cases show possible correlation with other viruses such as influenza and CMV although most cases do not have a clear underlying cause or association.[5]

The primary care provider should consider other causes of non-infectious genital ulcerations such as recent medications. Tetracyclines, sulfonamides, barbituates, oral contraceptives, pencillins, NSAIDS, Tylenol, and salicylates have been implicated. Genital ulceration may be a component of a larger

clinical diagnosis such as erythema multiforme, Stevens-Johnson syndrome, or toxic-epidermal necrolysis, and a thorough examination to rule out a systemic dermatologic illness is appropriate. Genital ulceration can also be a presenting symptom in malignancy such as squamous cell carcinoma or lymphoma.[6,7] Additionally, psychosocial etiologies of genital ulcers and genital ulcerations can be an initial presentation of sexual trauma and abuse.

While a biopsy is not recommended in routine diagnoses, it may be helpful to rule out skin diseases that can present similarly, such as pyoderma gangrenosum, autoimmune bullous disease, and Behcet syndrome. Biopsy of lesions generally show non-specific necrosis of epithelium with polymorphic dermal infiltrate of neutrophils and CD8 mononuclear cells.

Proposed criteria for diagnosis are:

- Presence of one or multiple deep, well-delimited, painful ulcers with a necrotic base on the labia minora or labia majora
- Bilateral, "kissing" pattern
- Absence of any sexual history or absence of sexual contact in the previous three months
- Absence of immunodeficiency
- Acute course, with abrupt onset and healing within six weeks [8]

Treatment is primarily supportive and includes wound care and pain control. Topical lidocaine and sitz baths are often prescribed to reduce pain during the healing process. Topical steroids have been shown to have some benefit. Patients with multiple deep necrotic ulcers may benefit from a short course of oral steroids, although literature does not show evidence that this improves healing time or reduces pain. If oral steroids are to be used, the general recommendation is a 7-10 day course of prednisone, which is then tapered. Antibiotics may be required if a bacterial superinfection is suspected or diagnosed based on culture.

Ulcerations will typically resolve in about six weeks in the majority of patients and the ulcerations generally do not leave scarring. Recurrence is noted in about one third of patients studied.[9,10]

Conclusion

The most common causes of genital ulceration remain infectious. Noninfectious causes should be considered when patients have an atypical presentation, lack of sexual history, or negative infectious testing. Treatment for non-infectious genital ulcers can be managed by the primary care doctor with pain control and reassurance. Severe cases may require treatment with oral or topical steroids. Patients with noninfectious genital ulcers have a good prognosis and will generally experience complete resolution of symptoms within six weeks.

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