Denouement and Discussion

Vulvar Ulcerations Resulting From Acute Epstein-Barr Virus Infection

Recent reports have documented the role of Epstein-Barr virus (EBV) in causing vulvar ulcerations. With this in mind, serologic tests for EBV infection were performed in this patient. Results were negative for the Monospot test, EBV–viral capsid antigen IgM titer, and EBV–nuclear antigen IgG titer, but results were positive for the EBV–viral capsid antigen IgG titer at 166 (reference range, <20), suggesting recent EBV infection. Based on these presenting clinical findings, we concluded that her vulvar ulcers were due to primary EBV infection. Two weeks later, her ulcers had healed completely and she had completely recovered from her illness.

Painful vulvar ulcerations (single or multiple) are, however, an uncommon but possibly underrecognized presentation of primary EBV infection in female adolescents. More than 25 cases of EBV-associated genital ulcers in females have been reported with a median age of 14.5 years. Of the 26 cases, only 6 reported previous sexual contact. The mean healing time for the ulcers was 18 days in those 26 cases. The findings of large, painful vulvar ulcers covered by an adherent membrane are typical. Unlike our patient, however, most had other signs and symptoms of acute EBV infection, including fatigue and lymphadenopathy.

Such genital ulcers occurring in adolescents without documented venereal or nonvenereal infectious etiology were described by Lipschutz in 1927 as ulcus vulvae acutum. Recently, EBV has been recognized as a cause of Lipschutz ulcers. Epstein-Barr virus has been detected with polymerase chain reaction in a 12-year-old girl via vulvar biopsy, as well as from samples taken with swabs from the base of an ulcer. These findings suggest that EBV shedding can occur from both the oropharynx and the genital tract, and it has been hypothesized that this occurs as a result of continued reinfection by circulating B lymphocytes in epithelial cells at both sites.

The management of EBV-associated vulvar ulcers includes accurate diagnosis, reassurance, and symptomatic treatment for pain. Perhaps most important is distinguishing EBV-associated vulvar ulcers from other causes of vulvar ulceration. The acute onset and painful nature of this condition can mimic many other conditions, including herpes simplex infection, as well as a number of other sexually transmitted diseases, such as syphilis, chancroid, granuloma inguinale, and lymphogranuloma venereum, and other conditions such as trauma (either accidental or nonaccidental), lichen planus, lichen sclerosus, inflammatory bowel disease, and Behçet syndrome (Figure 2). Knowledge of EBV as a potential cause of vulvar ulcers is important in avoiding unwarranted accusations of sexual activity or abuse. Recognizing vulvar ulcers, particularly in the context of a non–sexually active teen or preteen, should heighten suspicion for acute EBV infection as a potential cause and prompt serologic evaluation for EBV infection.

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REFERENCES


Figure 2. Differential diagnosis of vulvar ulcers.