



INFECTIOUS DISEASES (BACTERIAL, FUNGAL, VIRAL, PARASITIC, INFESTATIONS)

A CASE OF CYTOMEGALOVIRUS AND HERPES SIMPLEX VIRUS CO-INFECTION IN AN IMMUNOCOMPROMISED PATIENT

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Background: Cytomegalovirus (CMV) co-infecting with herpes simplex virus (HSV) rarely occurs in patients with human immunodeficiency virus (HIV) infection. To date, few cases of CMV/HSV co-infection have been reported in the English literature. Here we describe a case of cutaneous CMV/HSV co-infection in immunocompromised patient.

Observation: A 44-year-old female was referred for itchy ulcers with leakage on the vulvar for two months. The patient had a one-year history of prolonged low-grade fever. On investigation, her hemoglobin was 87g/L, WBC was $3.76 \times 10^9 /L$, HIV was positive. Dermoscopy showed mucocutaneous ulcers with leakage around clitoris. Lesions biopsies demonstrated irregular hyperplasia of epidermis. Some lesions were ulcerated. Other histological features were observed including lymphocytic, neutrophils and plasma cells infiltrate in the upper dermis, the large epithelial cells with abundant cytoplasm infiltrates in dermis and around blood vessels, angiectasis. Immunohistochemical staining demonstrated predominantly CMV-positive infiltrate in epidermal and dermis and some epidermal cells were positive for HSV I/II. The diagnosis of CMV and HSV co-infection was made.

Key message: Cutaneous CMV/HSV co-infection can appear as ulcer and blisters on the vulvar in immunocompromised patient. Histologic features were founded including intracellular edema and ballooning degeneration of epidermal cells. Typical inclusion bodies of intranuclear and intracytoplasmic are observed on in epidermis, dermal and even capillaries. Immunopathologic examination reveals both CMV and HSV I/II antigens are positive. As in our case, the diagnosis of CMV/HSV co-infection is also supported by this patient's history of HIV infection, as a few of CMV or HSV infection cases were associated with underlying condition. We present this case to heighten awareness of this disease in HIV patient.

