Figure 1 depicts an endocervical epithelial cell with cytopathic effects typical of cytomegalovirus (CMV). This characteristic morphology resulting from CMV infection may be seen in nearly every tissue type, including the lungs, central nervous system, gastrointestinal tract, and genital tract. It is characterized by infected host cells which contain a single, large, Cowdry type A intranuclear inclusion with a surrounding halo and nuclear chromatin margination. This imparts an “owl’s eye” appearance to the nucleus. Intracytoplasmic inclusions are also frequently observed in CMV cervicitis. These inclusions can help distinguish CMV from HSV infection. Although the CMV cytopathic effect is a rare finding on cervical cytology, the actual carriage rate determined using molecular diagnostics can range from 14% to 29%, indicating that it may be routinely overlooked (4, 5). Patients with CMV cervicitis are typically asymptomatic and do not require treatment. However, CMV cervicitis may be the first manifestation of an underlying immunodeficiency. For this reason, it is important for the laboratory staff to communicate their findings to the patient’s physician in order to prompt further workup, including HIV testing, if the patient has concurrent risk factors (1). Another setting in which CMV cervicitis may be clinically significant is during pregnancy (2, 3, 5). This is due to the virus’s association with early spontaneous abortion as well as fetal infection resulting in congenital chorioretinitis, calcification of the cerebrum, and microcephaly. Although current CDC guidelines do not recommend routine serologic screening for all pregnant women, studies suggest screening of women who are at high risk for primary infection, including health care and childcare workers (2, 5).

REFERENCES


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