Risk of acquiring cytomegalovirus infection while working in out-of-home child care centres

In 1990 the Infectious Diseases and Immunization Committee of the Canadian Pediatric Society published a statement on cytomegalovirus (CMV) infection in daycare centres (1). Since then data from two recently published studies suggest that work in a child care setting does increase the risk of CMV infection (2,3). Accordingly, the Committee's recommendations concerning screening of child care workers for CMV as well as ways to avoid work-related exposure to CMV have been revised. The new data and recommendations are presented below.

In Richmond, Virginia, the annual rate of seroconversion among child care workers was 11% (2) – five times that noted among age- and race-matched health care workers. In Birmingham, Alabama, the annual seroconversion rate of 20% among child care workers was 10 times higher than expected (3). The highest seroconversion rate, 31%, was observed among employees spending at least 20 h per week looking after children less than three years of age. The risk of fetal damage is approximately 15% for the susceptible (ie, seronegative) woman who acquires CMV during the first 24 weeks of pregnancy (4). Based on these figures, the risk that a seronegative woman – working in a child care setting – would acquire CMV infection during the first 24 weeks of pregnancy, and that fetal damage would result, varies from 0.8 to 2.1%.

As previously stated, the most important ways to avoid acquiring CMV infection while working in a child care setting include handwashing and avoiding direct exposure to potentially contaminated body fluids (especially urine and saliva). Susceptibility to CMV infection can be determined by a blood test (absence of anti-CMV antibody). Although routine screening for CMV is not recommended, it may be prudent for child care workers who are, or intend to become, pregnant. Seronegative women may wish to exercise one or more of the following options during pregnancy: avoid looking after children less than three years old; avoid exposure to potentially infected body fluids of children in their care, including direct mouth-to-mouth contact (via kissing); and wash hands after contact with potentially infected body fluids, including toys that might have been contaminated during play.

Among immune (ie, seropositive) women, re-infections may occur; the risk of fetal damage, although negligible, is not zero and thus, all pregnant women, (irrespective of CMV immune status) should be cautioned to comply with good hygienic practices as previously recommended (1).

REFERENCES

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Barbara Law, MD, FRCPC
Associate Professor, Pediatrics and Medical Microbiology
Section Head, Pediatric Infectious Diseases
University of Manitoba
Winnipeg, Manitoba