Congenital CMV Awareness in the United States

Sara Doutre, MA 1,2, Janelle Greenlee2, Karl White, PhD1
1Utah State University, 2National CMV Foundation

Abstract

Congenital cytomegalovirus, or CMV, affects one in 750 babies and is the leading non-genetic cause of hearing loss. However, very few adults are aware of CMV and the CDC-recommended precautions to take during pregnancy to prevent congenital CMV infections.

Awareness of CMV among adults in the United States was assessed via the HealthStyles survey in 2005, 2010 and 2015. Despite information about CMV on CDC’s website and the American College on Obstetrics and Gynecology recommending counseling about CMV, the awareness rate of CMV in the United States is decreasing.

Introduction

CMV is in the herpes family, spread through bodily fluids including saliva, blood, genital secretions, urine, and breast milk. By 80 years old, 90% of the US population has had CMV and most do not experience any symptoms.1-2

CMV has a very heavy disability burden. It is the leading cause of non-genetic hearing loss.3 CMV also causes mental retardation, cerebral palsy and many other disabilities.4 Approximately 0.7%, or 30,000, newborns are born with congenital CMV in the United States every year. Of the newborns with congenital infection, 6,000 will develop permanent disabilities including hearing loss, vision loss, cerebral palsy, or cognitive impairment.5

Pregnant women are most likely to contract CMV from young children and intimate partners. While the CMV virus can live for up to 15 minutes on hands and plastic, and up to 5 minutes on crackers, no viable virus survives after washing hands with water, soap, or sanitizer.6

Women can reduce their risk of transmitting CMV to their unborn baby by taking simple hygienic precautions. The CDC recommends the following:

- Wash your hands often with soap and water for 15-20 seconds, especially after changing diapers, feeding a young child, wiping a young child’s nose or drool, and handling children’s toys;
- Do not share food, drinks, or eating utensils used by young children;
- Do not put a child’s pacifier in your mouth;
- Do not share a toothbrush with a young child;
- Do not kiss young children on the lips; and
- Clean toys, countertops, and other surfaces that come into contact with children’s urine or saliva.

Prior to the 2015 survey, three surveys of public CMV awareness in the United States had been conducted in the past decade. Jeon, et al. surveyed 643 women at seven geographic locations: Atlanta, GA; Birmingham, AL; Cleveland, OH; Provo, Utah; Richmond, VA; Chicago, IL and Houston, TX. The study found that only 142, or 22% of women had heard of congenital CMV.7

Awareness about CMV was also queried in the 2005, 2010, and 2015 HealthStyles survey, a subset of a consumer mail survey of US adults over 18 years of age. HealthStyles is commonly used by the Centers for Disease Control and Prevention (CDC) for public health planning. Results are shown in Chart 1.

The 2005 survey found that 14% of women had heard of CMV.8 Data were not reported for men. This study also found that the hygiene preventive measures recommended by the CDC were judged to be easy to adopt by a large majority of participants, regardless of whether participants had heard of CMV. Of the respondents, 90% reported that washing hands would be very easy to adopt and 65% reported that it would be easy to not share eating utensils with a young child. Fewer participants, 48%, reported that not kissing a young child on the mouth would be very easy, but 20% reported it would be somewhat easy.

The 2010 HealthStyles survey, with a sample of 2,181 women and 2,003 men, showed 13% of women and 7% of men had heard of CMV.9

The 2015 HealthStyles survey was conducted from June 11 to June 29, 2015 and 4,127 adults responded to the survey (67% response rate). Results from the 2015 survey showed 8% of women and 5% men had heard of CMV.

Methods

Previously published research on the rate of congenital CMV awareness in the United States was reviewed. The 2015 HealthStyles survey, data made available by the National CMV Foundation, were analyzed and compared to previous survey results.

Chart 1. CMV Awareness among United States women (HealthStyles survey).

Discussion

Despite precautions recommended by the CDC and recommendation by the American Congress of Obstetricians and Gynecologists that pregnant women be counselled about CMV, the rate of awareness among United States women is decreasing at an alarming rate.

Why is awareness decreasing? The drop in awareness is puzzling given that the three HealthStyles surveys used the same methodology and questions, are all from large nationally representative samples with good response rates. One might reason that doctors are not counselling women about CMV and the harm it could cause to their unborn children. Women are aware of other conditions that have similar effects, but are much less common than CMV. For example, the 2015 HealthStyles data show 15% of US women are aware of congenital rubella, a condition that was eradicated in the United States in 2004 and has similar effects on children.

Doctors may be hesitant to counsel women is the personal nature of the prevention recommendations. 76% of women are aware of spina bifida, a condition for which risk can be decreased in pregnancy by taking appropriate folic acid supplements. It appears to be simpler to recommend women take vitamins than to ask them to change personal hygiene habits such as washing hands, sharing utensils, and not coming into contact with young children’s saliva.

Congenital CMV was identified as a top priority for vaccine development by the Institute of Medicine of the National Academy of Sciences in 2000.10 Until a safe and effective vaccine is developed, which could easily take many more years, women must be made aware of CMV and its potential harmful effects on their children.

Further research is needed to determine why CMV awareness is decreasing. It could be that doctors are not counseling women, that fewer women are having children, or that other conditions are getting more media attention. These ideas should be investigated further as well as the most effective methods of increasing awareness.

References


Contact

Sara Menlove Doutre
NCHAM, Utah State University
Email: saramoutre@gmail.com
Phone: 801-620-0932