

Link between ritual circumcision procedure and herpes infection in infants examined

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A rare procedure occasionally performed during Jewish circumcisions that involves direct oral suction is a likely source of herpes simplex virus type 1 (HSV-1) transmissions documented in infants between 1988 and 2012, a literature review conducted by Penn Medicine researchers and published online in the *Journal of the Pediatric Infectious Disease Society* found. The reviewers, from Penn's Center for Evidence-based Practice, identified 30 reported cases in New York, Canada and Israel.

The practice—known as metzitzah b'peh—and its link to HSV-1 infections have sparked international debate in recent years, yet no systematic review of the literature has been published in a peer-reviewed journal examining the association and potential risk. During metzitzah b'peh, the mohel, a Jewish person trained to perform circumcisions, orally extracts a small amount of blood from the circumcision wound and discards it.

Lead author Brian F. Leas, MS, MA, a research analyst in the Center for Evidence-based Practice at the University of Pennsylvania Health System, identified six relevant studies for the systematic review. All six studies were descriptive case reports or case series that documented neonatal HSV-1 infections after circumcision with direct oral suction.

"There is sufficient clinical evidence to suggest the practice is a source of infection and therefore a risk exists—though the extent or magnitude of that risk is not well defined and warrants further investigation," said Leas. All of the studies, the authors report, presented clinical findings

consistent with the transmission of infection from mohel to infant, including the location of HSV lesions, timing of symptoms, and HSV type. Two infants died, whereas others experienced mild to severe symptoms of the virus.

More than half of American adults are infected with HSV-1, which frequently presents itself as oral lesions, or cold sores, though many people never or rarely develop symptoms. Newborns infected with HSV-1, on the other hand, can become very sick quickly with high fever and seizures, and it can even cause death. Herpes simplex virus type 2 is a sexually-transmitted disease and is characterized by genital lesions, and is less common, affecting about 16 percent of adults.

The practice of metzitzah b'peh has been used in some ultra-Orthodox Jewish circles; however, the researchers note it is unclear how many metzitzah b'pehs take place in the United States per year.

The New York City Department of Health and Mental Hygiene instituted regulations in the fall of 2012, after a number of babies contracted herpes following the practice. Mohels in New York City are required to obtain written consent from parents before performing metzitzah b'peh. New York City has a relatively higher population of those who identify as ultra-Orthodox compared to the rest of the country.

In a [2012 report](#), an American Academy of Pediatrics task force concluded that [circumcision](#) is safe and provides overall health benefits, including reducing the risk of HIV, but advised against direct oral suction due to risk of infection.

"Neonatal herpes infection can cause severe morbidity and potentially death, so mitigating potential risks for infection is critical," the authors write. "More research using cohort or case-control designs to fully

capture all the relevant data is needed to clarify the real-world risk of HSV-1 infection associated with metzitzah b'peh."

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