

Shedding Light On Mezizah B'Peh and Herpes

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First, some background information about Herpes Simplex Virus (HSV). The word herpes (from the Greek, "to creep") has been used in medicine since antiquity. Cold sores (herpes febrilis) were described by the Roman physician, Herodotus, in the year 100 of the Common Era. The virus was grown in a laboratory in 1925. The virus has a worldwide distribution and has been found even in remote areas.

HSV is divided into two viruses, HSV-1 and HSV-2. They are quite similar and, in fact, share about 50% of their DNA composition. HSV-1 is generally associated with oral infections. The primary infection causes multiple ulcerations inside the mouth. The reactivation phase of the infection generally occurs on the lip. This will manifest itself as what is generally called a "cold sore" or "fever blister." It can occur on other parts of the face. Some people suffer from the reactivation phase at different intervals, often stimulated by illness or sun exposure. Others will never have any reactivation after a primary infection.

Both viruses have been associated with "asymptomatic shedding." This means that virus can be detected even when there are no obvious lesions either on the lips or in the genital area. The incidence of shedding of the two viruses is different.

Infection with HSV-1 is common. In fact, more than 90% of adults have antibodies to HSV-1 by the fifth decade of life. This means that they have been infected with the virus at some time. I was unable to find information as to what percentage of these people will have recurrent oral lesions and what percentage will remain without any reactivation for life.

Studies have been done to look at asymptomatic shedding of HSV-1. An earlier method of identification of asymptomatic shedding was viral cultures. Virus is now identified with DNA analysis. Several facts have been established. The rate of shedding is greatest when closest in time to the primary infection. It also has been shown that with advancing age, the rate of shedding decreases significantly. The overall incidence of asymptomatic shedding of HSV-1 is between 5 to 10%. These numbers do not differentiate between groups at higher risk for shedding from those at lower risk. There is no established association between the level of antibody and the incidence of shedding. The incidence of asymptomatic shedding in an adult who never has had a reactivation of HSV-1 is not known. Some cases were reported in the Medical Journal of Australia in 1980 (September 6, 1980) where there was asymptomatic shedding even with a negative antibody test.

Neonatal Herpes infection, meaning Herpes infections in infants younger than six weeks, without treatment leads to death in 65% of cases. Fortunately, we now have effective antibiotic therapy if the infection is detected in a timely manner and treatment is initiated. Thirty% of cases of neonatal Herpes infection are caused by HSV-1. Most of these infections are caused by contact with infectious genital secretions at birth. Some are acquired through postnatal contact with health care workers or immediate family members who have HSV-1 infection.

When medical science looks to establish transmission of

virus from one human being to another, the method has been to establish a means of transmission and then to prove by DNA analysis that the virus is shared by the two individuals. It should also be shown that there was no other way for the infected person to have received the virus. Examples of this can be found in other viruses. For example, in the 1980s there was an outbreak of HIV associated with one dentist. The Center for Disease Control (CDC) in the United States conducted an investigation. Through DNA analysis, they determined that the virus was shared by the dentist and a group of patients who were infected. They went to great lengths to determine that the patients could not have acquired the infection in any other way. There was a case of hepatitis B transmission from a surgeon to multiple patients in 1992. Again, it was established that the DNA was identical in the hepatitis virus of the surgeon and in that of the patients who acquired it from him. This is the method of establishing transmission of viruses.

In the literature of transmission of Herpes virus infection, this also has been the method of establishing transmission. There was a case reported in 1983 of a neonate who acquired HSV-1 from his father. In this case, the father developed a large lesion on his lip soon after his son developed HSV-1 infection. Through DNA analysis, it was determined that the virus acquired by the son was identical to that of his father. Evidence of transmission was established. This was buttressed by the appearance of the lesion on the lip of the father.

A recent article that was published in the journal Pediatrics attempted to establish a connection between neonatal Herpes infection and the practice of metzizah bepeh. I will summarize some of the methods, results, and conclusions of the study. The article was authored by 11 physicians and one individual with a Ph.D.. It was the collective experience of these physicians covering seven medical centers in Israel and one hospital in Toronto, Canada. It spanned a time period of six years from 1997 to 2003. "The 8 cases were collected from personal communication and the experience of the authors from 1997 to 2003." It is not clear at all how these cases were found. The study did not seem to look at all cases of neonatal Herpes in these institutions, over this time period. Had they done this and found that all cases of neonatal herpes were related to metzizah bepeh, the conclusion may have been impressive. There is no indication that this was done. The authors do not explain how those particular cases were chosen to be investigated. There is also no investigation of any relatives or people who cared for these babies, when it is well described in the literature that postnatal infection can occur through contact with such individuals.

As I stated before, the accepted method of proving transmission of virus is through DNA analysis. The authors admit that only four of the six mohels involved were tested and that mouth cultures obtained from the four mohels were all negative for HSV-1. These four mohels were "seropositive for HSV." The article does not state which HSV they were positive for. In any case, 90% of the adult population, as I mentioned before, has evidence of previous HSV-1 infection.

The authors conclude that “our findings provide evidence that ritual Jewish circumcision with oral metzizah may cause oral-congenital transmission of HSV infection.” I am unable to see any such evidence. The established method in medical science of proving the transmission of virus has been through DNA analysis. There is no such evidence in this report. The authors also state, “furthermore, oral suction may not only endanger the child but also may expose the mohel to human immunodeficiency virus or hepatitis B from infected infants.” There is absolutely no data to establish such a connection.

Although there is no proof in this study that there is transmission of Herpes virus through the practice of metzizah, one might be left with the question of the possibility even without absolute evidence. In answer to this question, there are thousands and thousands of babies upon whom metzizah bepeh was done and there is not one case in history where there has been a DNA link between the mohel and the baby. If such a danger existed, given that there are people looking to prove that such a danger exists, such a connection should have been established by now, at least, in one case.

The case of one mohel in the New York area has been publicized in the media. Again, to my knowledge there is absolutely no DNA connection between the mohel and the babies involved. It is also not clear to me if and how any other individuals involved in the care of the babies was investigated.

Why is it that transmission doesn't occur? First, as I stated before, we do not know what the incidence of shedding is in an adult who never has had a reactivation of Herpes infection. It may be nonexistent. It also may be that even if such an individual were to shed, the virus that he has may be weaker in quality and less in quantity and thus unable to transmit virus.

It may be the explanation as to why such a person never developed reactivation in the form of cold sores. Furthermore, it is known that saliva is not an efficient way of transmitting virus. Saliva is known to have components that weaken viruses. In fact, HIV, a highly contagious virus, has never been shown to be transmitted through saliva. An individual has never been shown to transmit HIV to another individual with intimate kissing. It also may be possible that by putting wine in the mouth, the virus, if it were to be present, would be further diluted. Finally, the time of contact between the mohel and the baby is so brief that the possibility of transmission is further reduced.

In summary, Herpes infection is not a new medical problem. It has been present for thousands of years. Throughout this time, there has never been a case of documented transmission from a mohel in the absence of an active lesion on the lip. A recent study purporting to link metzizah bepeh to neonatal Herpes does not follow any of the usual methods of establishing transmission of viruses and comes to unfounded conclusions. It does not offer any DNA evidence of transmission and makes no mention of investigating any other contacts of these babies. Having antibodies to Herpes virus is of no significance in determining risk of transmission, as 90% of the adult population has such antibodies. It has even been shown that individuals without antibodies are capable of shedding virus. Finally, one can see in the technique of how metzizah bepeh is performed by skillful mohels, why to this day we have never seen a case documented of transmission of Herpes virus from mohel to infant.

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