About herpes

What causes herpes infections and outbreaks?

Herpes simplex virus is categorized into 2 types: herpes simplex virus type 1 (HSV-1) and herpes simplex virus type 2 (HSV-2). HSV-1 is often transmitted by oral to oral contact (oral herpes), yet increasingly initial infections with HSV-1 are genital.[6] HSV-2 is almost entirely sexually transmitted, causing genital herpes. Herpes infections are most contagious when symptoms are present, but the virus can still be transmitted to others during periods of asymptomatic shedding.

How common are herpes infections?

HSV infections are a significant global health problem that affect all age groups with prevalence rates increasing with age, especially in teens and young adults. 54% of the US adult population under the age of 50 is infected with HSV-1, and 16% with HSV-2.[7] Global prevalence varies by region, with parts of sub-Saharan Africa reporting HSV-2 rates as high as 80% among men and women aged 35 years and older.[2]

What are the symptoms of herpes?

HSV-1 and HSV-2 are responsible for recurrent oral and genital blisters or open sores called ulcers that can be painful. HSV-2 is the leading cause of genital ulcerative disease worldwide,[2] whereas HSV-1 has emerged as the more common cause of first episode genital infection in industrialized nations.[6] Herpes is characterized by lifelong infection and frequent reactivation. Individuals with herpes infection face a chronic illness that may be painful, bears a societal stigma, and causes considerable psychological distress. Importantly, viral shedding occurs even in the absence of symptoms and contributes to transmission of the disease to others.[8]

What are the complications of herpes disease?

Herpes simplex can cause encephalitis or meningitis (inflammation of the brain or the tissue that covers the brain and spinal cord), and infectious blindness. HSV-1 is the most common cause of sporadic fatal infectious encephalitis in the US; even with optimal intravenous acyclovir therapy, mortality is 14-19% and fewer than 50% of survivors are able to resume a normal lifestyle.[9]

The virus can also be passed from mother to child during birth. Neonatal infection is a rare condition but can be very serious; it can result in lasting neurologic disability or death.

Moreover, HSV-2 and HIV have been shown to influence each other: HSV-2 infection increases the risk of acquiring a new HIV by approximately threefold.[4]

In addition, people with both HIV and HSV-2 infection are more likely to spread HIV to others.[4] Infection with HSV-2 in people living with HIV (and other immunocompromised individuals) often has a more severe presentation and more frequent recurrences.

How is herpes treated?

No drug can get rid of the herpes virus. The ability of the virus to successfully avoid clearance by the immune system by entering a non-replicating state known as latency is the cause of lifelong infection with frequent subclinical or clinical reactivation. Antivirals, such as acyclovir, famciclovir, and valacyclovir can help to reduce the severity and frequency of symptoms, but cannot cure the infection.

Why is there no vaccine to prevent herpes?

A vaccine that reduces the incidence of primary infection and limits the number of recurrent symptoms and shedding may have a significant impact on reducing the complications associated with herpes, including neonatal herpes and HIV transmission. However, over several decades all of the previous attempts to develop a protective HSV vaccine have failed in the clinic.[6]

References

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