Herpes simplex virus (HSV) infection of the genital tract is one of the most common sexually transmitted infections (STI). HSV is a double-stranded DNA virus differentiated as HSV-1 or HSV-2; most genital infections are caused by HSV-2 but genital infection by HIV-1 is becoming more common. It is estimated that approximately 45 million Americans have been infected with HSV-2; since HSV-1 also causes genital disease the prevalence of HSV genital disease is much higher. (ACOG 2007 reaffirmed 2012) Most individuals are unaware of their HSV infection with only 5 to 15% of infected individuals reporting recognition of their disease.(ACOG 2007 reaffirmed 2012) Risk factors for HSV infection include female gender, lifetime duration of sexual activity, minority ethnicity, prior STI, lower socioeconomic status, and numerous sex partners.

Neonatal herpes is usually acquired during the intrapartum period through exposure to the virus in the genital tract. In utero and postnatal infections are rare but can occur. Approximately 80% of infected infants are born to mothers with no reported history of HSV infection. (ACOG 2007 reaffirmed 2012) It is estimated that there are 1,200 to 1,500 neonatal HSV infections in the US per year. (ACOG 2007 reaffirmed 2012) Two-thirds of neonatal HSV infections are due to HSV-2 and the remaining one-third to HSV-1 infection. (Wendel 2010)

Antepartum Management

Primary HSV acquired during late pregnancy has the highest likelihood for neonatal transmission. Diagnosis consists of history and physical examination with culture of the lesion(s). Transmission from person to person occurs through direct contact of viral secretions to mucosa or abraded skin. The incubation period ranges from 2 to 12 days. Symptoms include a vesicular or ulcerative genital lesion with or without pain or burning at the site. The most commonly utilized methods of testing include viral culture of a lesion and HSV antigen detection by polymerase chain reaction (PCR). Serology testing can be performed to determine if the infection is primary or a recurrence. Primary infection is diagnosed when HSV-1 or HSV-2 is detected in individuals with no evidence of antibodies to either viral type in the serum. Universal serology screening of all pregnant women for HSV is not recommended currently.

Systemic antivirals can be used to diminish signs and symptoms but they will not remove latent virus. Antiviral suppressive therapy from 36 weeks to delivery has been shown to decrease HSV recurrences and asymptomatic shedding at delivery.

Intrapartum Management

Women with a history of recurrent HSV should be asked about signs and symptoms of HSV and have a careful vulvar, vaginal, and cervical examination for possible lesions. Suspicious lesions should be cultured. Cesarean delivery is indicated in women with active genital lesions or prodromal symptoms such as vulvar pain or burning at delivery.

Recommendations

- Women with active recurrent genital herpes should be offered suppressive antiviral therapy at or beyond 36 weeks gestation until delivery.
- Cesarean delivery is indicated in women with active genital lesions or prodromal symptoms, such as vulvar pain or burning at delivery.
- Routine HSV serologic screening of pregnant women is not recommended.
- Routine antepartum genital HSV cultures in asymptomatic patients with history of recurrent disease are not recommended.
- Cesarean delivery is not recommended for women with a history of HSV infection without active genital disease during labor, i.e., active genital lesions or prodromal symptoms.
- Potential treatment regimens are listed in the Table below. Recommendations are constantly evolving. These recommendations are based on the CDC 2010 STD treatment guidelines. https://www.cdc.gov/std/tg2015/specialpops.htm#preg

Antivirals(CDC 2010)

Antivirals	Valacyclovir*	Acyclovir*	Famciclovir*
First clinical episode	1,000mg twice a day for 7-10 days	200mg 5 times a day or 400mg 3 times a day for 7-10 days	250mg 3 times a day for 7-10 days
Recurrent episodes	500mg twice a day for 3 days	400mg 3 times a day or 800mg twice a day for 5 days	125mg twice a day for 5 days
Daily suppressive therapy	500mg once a day (≤9 recurrences per year) or 1,000mg once a day (>9 recurrences per year)	400mg twice a day	250mg twice a day

*FDA pregnancy category B medication

References

ACOG (2007 reaffirmed 2016). Management of Herpes in Pregnancy Practice Bulletin #82. *The American College of Obstetricians and Gynecologists.*

CDC (2017) 2015 STD treatment guidelines. https://www.cdc.gov/std/tg2015/specialpops.htm#preg retreieved 7/17/2017.

Wendel, G. D. (2010). Cytomegalovirus, Genital Herpes, Rubella, Syphilis and Toxoplasmosis. Protocols for High-Risk Pregnancies. J. T. Queenan, J. C. Hobbins and C. Y. Spong. West Sussex, UK, Wiley-Blackwell**:** 287-289.