Genital Herpes Infection Simplex Type 2 (HSV-2)

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# Background

Genital herpes is a sexually transmitted disease that is caused by a virus called herpes simplex. Herpes simplex has two types. While type one is primarily related to oral herpes (HSV-1), which is characterized by fever blisters or cold sores, type two is associated with genital herpes (HSV-2). With genital herpes, breakouts can occur both in the oral, as well as in the genital areas (Schub & Ashley, 2018). Furthermore, more than 80% of individuals affected with genital herpes remain asymptomatic, with no physical signs of being affected by the virus. However, when genital herpes is symptomatic, it shows signs and symptoms 3 to 7 days after sexual contact, in the form of small blisters on genitalia or adjacent areas i.e. buttocks, thighs, groin, etc. These blisters rupture within a few days, and the painful and shallow ulcers it causes simply crust over and heal within 2 to 6 weeks without any scarring (Schub & Ashley, 2018).

Genital herpes affects about 536 million people worldwide, between the ages of 15 and 49. However, in the USA alone, about 50 million people have HSV-2, with about 25 to 30 percent being symptomatic (CDC, 2016). It is more common among the females as compared to the males and is three times as prevalent in blacks as compared to the whites. Babies born to mothers with asymptomatic genital herpes can suffer from the disease as well, with some cases proving to be deadly to the fetus (Brown et al., 1997).

# Prevalence of disease in Baltimore

While this disease is most prevalent in the cities, there is a very limited amount of data available on its epidemiology, especially in urban populations. If we take Baltimore, Maryland alone under consideration, it has been reported that among the population being studied by Patel et al. (2014), about 54.4% individuals were positive for HSV-2, with 59.4% being seropositive in the Baltimore City alone. It was found to be highest among female patients i.e. 63.6%, with females above the age of 25 being more at risk 57.9%. This was followed by blacks, divorced patients, widowed patients and unemployed patients on Medicare with the prevalence being 66.3%, 66.3% 66.2%, and 58.3% respectively (Patel et al., 2014). However, non-Hispanic black females over the age of 35 were at the highest risk of contracting the disease, with 82.8% being seropositive. This figure increased if these females were divorced, single or unemployed (Patel et al., 2014).

# Treatment Options

While there are no approved vaccines for the treatment or prevention of genital herpes (Groves, 2016), acyclovir is the most used medication for the treatment of genital herpes. In the case of first-time occurrence of HSV-2, Acyclovir, Famciclovir, or Valacyclovir is administered for 7–10 days orally (Schub & Ashley, 2018). If it is a recurrent episode, the same medication is continued for a period of 5 days. However, if the patient suffers from an HIV and HSV coinfection, Acyclovir, Famciclovir, or Valacyclovir should be administered twice a day for 5 to 10 days, with the addition of Oscarnet if faced by resistant strains of HSV. Finally, in case a complication occurs, e.g., encephalitis, Acyclovir is administered intravenously (Schub & Ashley, 2018).

# Side Effects of Medication

Acyclovir, along with Valacyclovir are established antiviral agents, frequently used for the treatment of HSV-2. However, they are accompanied by neurotoxic side effects that can lay grounds for renal impairment. This is because 90% of the drug being absorbed in the blood is renally excreted. It can cause visual hallucinations and even death delusions to those it has been administered to. Thus, it is recommended that the dosage of both Acyclovir and Valacyclovir, being used, should be adjusted on the basis of the patient and their renal function (Sacchetti, Alawadhi, Albakour, & Rapose, 2014).

# Psychosocial Factors

Treatment of genital herpes should be customized on the basis of the disease profile of a patient, along with their sexual practices and psychosocial needs. Those that suffer from an infrequent recurrence, often seek episodic treatment. However, when a patient takes the first step towards treatment for genital herpes in the initial stages, the treatment becomes safer and more effective than earlier. Additionally, it keeps them from feeling ostracized by society, since people stigmatize individuals with genital herpes. The feel marginalized by their peers and often do not seek help when it is needed, thus worsening the condition and making it more difficult to treat (Wang, Merin, Rendina, & Pachankis, 2018).

# References

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