Prostate Cancer and HSV

Is there a connection?

Many studies have been conducted to discern the cause of prostate cancer including those examining whether sexually transmitted infections (STIs) play a role. In 2009, the American Association for Cancer Research published results of a study conducted by the military to explore the possibility of any link between prostate cancer and herpes simplex virus type 2 (HSV-2).

The study included all branches of the military -- Army, Air Force, Marines, and Navy. To qualify for the study, which was conducted between September 1993 and September 2003, men had to be eighteen years of age or older and registered as active duty for at least two years. This was a case control study; case-control studies compare those who have the condition (cases) with patients who do not have the condition but are otherwise similar (controls). In this study, cases were men who were already diagnosed with prostate cancer. Controls were randomly selected men in the military that had never been diagnosed.

The processes of pairing the cases and controls were based on factors such as age and time of diagnosis. In the beginning of the study, 126 of the men had HSV-2 infection. Ten years later, the end results were not conclusive enough to give a definitive answer. The researchers stated:

"Intriguingly, our data based on the earlier serum specimens, collected on average 7.8 years before prostate cancer diagnosis, showed an increased risk of prostate cancer among men who had elevated antibody titers against HSV-2. The association with HSV-2 was strengthened when analyses of the earlier sera were restricted to those specimens collected at least 5 years before diagnosis. If HSV-2 infection is causally related to prostate cancer, then our findings would suggest a long latency period after HSV infection. This is important in that most risk factors for cancer show a latency period of many years."

In other studies to determine if HSV-2 or other STIs may cause prostate cancer, some have suggested a possible link while others have not. In 2001, researchers conducted a case control
study, similar to the military study cited above, with caucasian and African American men 40-64 years old. Participants included 753 males diagnosed with prostate cancer no earlier than January 1993. From this study researchers found that the more sexual partners a man had, the higher the risk of prostate cancer development. Researchers observed a slightly elevated risk of prostate cancer caused by HSV-2, but the elevated risk was not high enough to provide a definitive answer.

In 2005 the *Journal of Infectious Diseases* published additional research on the topic. The article described an experiment investigating a connection between HSV-2, Human Herpesvirus type 8 (HHV-8) and prostate cancer. This too was a case-control study. Researchers concluded there was no relation between HSV-2 and prostate cancer. As for HHV-8, only 1.8% of the cases and 2.4% of the controls were positive for HHV-8 so it was too rare to assess.

While this evidence cannot clearly purport a connection, men may want to consider prostate exams, especially those whom are older or African American, as these groups are more likely to develop prostate cancer.