Unfortunate synergy between HIV and genital herpes

Case scenario

You have a young male patient taking treatment for HIV whose last viral load was undetectable. He has requested an urgent assessment, and when you see him he does not look happy. "I think I have herpes," he says. He has had shivers and myalgia for 3 days. You examine him and find vesicles with surrounding erythema near the base of his penis, and there is tender lymphadenopathy locally. You take a viral culture for herpes and a nucleic acid amplification test for syphilis and lymphogranuloma venereum (LGV) to work up your differential diagnosis. Your patient says he knows genital herpes is not curable and has 2 questions: "What will this do to my HIV viral load?" and "Is there a risk of herpes transmission even with treatment?"

Evidence

Genital herpes simplex virus type 2 (HSV) is common, affecting an estimated 10% of adults in Canada.[1] When there is co-infection of HSV and HIV, there is a doubly negative effect. Genital HSV reactivation has been shown to increase HIV viral load, risk of HIV transmission, and disease progression.[2,3] Co-infection of HSV and HIV has also been shown to increase HSV viral shedding, risk of HSV transmission, and frequency and severity of HSV symptoms.[4,5] Anyone who has multiple partners and unprotected sex is at higher risk of co-infection. Syphilis and LGV are less common but are on the rise in Canada, especially in men who have sex with men[6] and those with HIV.[6,7]

Suppressive therapy (acyclovir, famciclovir, or valacyclovir) is used primarily to prevent recurrence; only valacyclovir has been proven to reduce risk of HSV transmission in immunocompetent people. The effect on HSV transmission in those with HIV is unclear. A recent systematic review examined whether suppressive antiviral therapy for HSV in those co-infected with HIV prevents HSV transmission.[8] Most studies used surrogate markers, such as HSV detection and viral load. The only study that directly measured transmission of HSV found no protective effect from treatment (9% transmission rate with acyclovir vs 6% with placebo). Results of this trial await confirmation. Although there was preliminary evidence that valacyclovir reduces HSV detection and viral load in those with HIV who had never taken antiretroviral therapy, this effect was not found in those currently taking antiretroviral therapy.[8]

Management

You summarize the evidence for your patient. Infection with HSV is associated with increased HIV viral load and risk of HIV transmission. Suppressive therapy has not been shown to reduce risk of HSV transmission, but can help decrease recurrence. Although viral shedding can occur even when asymptomatic, risk of HSV transmission is highest when there are symptoms. You question him and find out that since he learned his viral load was undetectable he has been having unprotected sex. You discuss the need to use condoms to reduce the risk of HSV transmission and recommend he notify all sexual partners in the previous 60 days. Supportive counseling will be important and you arrange to see him after the laboratory results come in. You make a note to call public health if the diagnosis is confirmed. Syphilis and LGV are notifiable diseases; genital HSV infection is notifiable in some provinces.[9]

Bottom line

There is unfortunate synergy between HIV and HSV. Newly diagnosed patients might feel depressed, fear being judged or rejected by partners, and be anxious about the effect of HSV on their HIV.[9] Suppressive therapy is often prescribed to prevent recurrence, not to decrease risk of transmission. Safer sex practices including condom use should be emphasized.

La traduction en français de cet article se trouve à **www.cfp.ca** dans la table des matières du numéro **de février 2016** à la **page e78.**

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CANADA COMMUNICABLE DISEASE REPORT
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CCDR Highlights summarize the latest evidence on infectious diseases from recent articles in the *Canada Communicable Disease Report*, a peer-reviewed online journal published by the Public Health Agency of Canada. This highlight was prepared by **Dr Patricia Huston**, a family physician, public health physician, and Editor-in-Chief of the *Canada Communicable Disease Report*.