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Views and Practice

Success and challenge in treating HIV-infected patients

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The advent of combination antiretroviral therapy has turned the fatal HIV infection into a more manageable condition. In Hong Kong, the first case of HIV infection was reported in 1984. Although the number of newly-diagnosed HIV infection continues to grow over the years, the increasing trend of AIDS reports had ceased by 1997.[1] This is most likely contributed by the effectiveness of Highly Active Antiretroviral Therapy (HAART) introduced at around the same time. The mortality rate of patients with advanced HIV disease in the HAART era has been substantially reduced by 80% compared to that in the pre-HAART era.[2]

Fuelled with global HIV/AIDS epidemic, pharmaceutical companies continue to invest in the search for new and better drugs. The US FDA approved 2 new classes of antiretroviral drug (CCR5 antagonist and integrase inhibitor) in 2007 and one new non-nucleoside reverse transcriptase inhibitor (etravirine) in 2008. A few more novel antiretroviral agents are in the pipeline to add to the armamentarium in treatment of HIV infection.

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As a physician treating HIV-infected patients, I have the privilege to witness the clinical efficacy and the exciting improvement of combination antiretroviral therapy. With the potent antiretroviral agent, most patients would have satisfactory immune recovery and HIV viral suppression. Many opportunistic infections have been averted. Should the patient adhere to the combination therapy faithfully, secondary drug resistance becomes a rarity. The patient would also experience a rapid recovery in energy and appetite. I have encountered a patient who asked for ways to put on weight prior to initiation of HAART, then asked for ways to reduce body weight 3 months post HAART because the body weight has increased by almost 30 lbs over that short period of time. The introduction of tenofovir and emtricitabine in treatment of HIV HBV co-infection has also made a significant progress. I encountered HIV-infected patient who not only have anti-HBe seroconversion and plasma HBV viral load suppression, but also anti-HBs seroconversion post treatment of tenofovir-emtricitabine-based HAART. The devastating facial lipoatrophy due to stavudine, a first-line drug in the past, is no longer a major problem in the preferred regimen currently recommended by the US DHHS guideline.[3] The pill burden can be reduced to 1 to 2 tablets a day making drug adherence to combination therapy substantially easier.

Nevertheless, the new antiretroviral agents are not perfect. There are patients who experience renal toxicity and even Fanconi's syndrome due to

tenofovir. A large number of patients suffer from dyslipidaemia and metabolic syndrome secondary to treatment of protease inhibitors. A patient of mine whose plasma lipid profile was normal before HAART, developed marked hyperlipidaemia (total cholesterol 12 mmol/ml, triglyceride 30 mmol/ml) a few months post HAART! The clinical challenge is to minimize the drug toxicity and to further improve the quality-of-life for people living with HIV/AIDS.

Hong Kong also has had success in HIV prevention over the years. The prevalence of HIV infection among injecting drug users remains extremely low, in part a fruit of the methadone programme. Similarly, the prevalence among female sex workers is very low. Behavioral survey showed clients of sex workers in Hong Kong consistently use condom 80% of the time. These factors have kept the number of new HIV infections from growing fast and furious.

However, the nature of Hong Kong epidemic has changed. A serious MSM (men who have sex with men) epidemic is underway. The number of new infections among MSM has risen rapidly since 2003. Over the last five years, there has been a 3-fold increase in annual number of infections among MSM, reaching a record high of 132 in 2008 and outnumbering heterosexual men.[1] Three clusters of HIV-1 subtype B infection with similar gene sequencing had been identified, adding the evidence of indigenous transmission among MSM. Among the risk factors, using the internet as the platform to know sexual partners and using soft drugs during sexual activities pose a new public health challenge in the prevention and control of HIV infection.[4]

One of the challenges is how to turn the foe into a friend, i.e. using internet as a novel venue for safer sex education and partner notification. The information can be uploaded into various formats such as text, graphics, audio, video or blog. The internet has great potential as an important HIV prevention medium, but it appears that the greatest potential has yet to tap. We, as a service provider, should not be lagging behind our target audience in the creative use of this new medium.

Drug abuse does not discriminate gender or sexual behavior. The use of soft drugs is not unique among MSM. It is clear that the problem is also prevalent among teenagers and school students, an issue that has attracted a lot of media attention and has been widely discussed in the community recently. How could we effectively prevent MSM and teenagers alike from being the victims of psychotropic drugs? How do we effectively rehabilitate the victims? These are formidable challenges not merely for public health colleague or Christian Zheng Sheng College, but also for policy makers, educators, parents and peers. Rapid, collaborative and targeted actions from all parties are urgently needed.

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