

Sexual Advice Association

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HIV and Sexual Dysfunction

HIV (or the Human Immunodeficiency Virus) infection was first described in 1981 as an unknown cause of immunodeficiency or failure of the body's immunity, originally in homosexual men, but which has spread outside this group. There are now over 40 million people infected with HIV worldwide. It is spread by having unprotected sexual intercourse, intravenous drug use, contaminated blood products and during pregnancy, childbirth and breastfeeding. The HIV virus infects what are called T-helper cells (CD4+) in the body, which have an important role in our immune system. HIV causes a steady fall in CD4 cells resulting in a state of widespread immunodeficiency in the body. The resulting immunodeficiency has been termed *acquired immunodeficiency syndrome* (AIDS). Affected individuals are susceptible to serious opportunistic infections and direct organ damage from the HIV itself. The issue of sexual functioning did not arise in those becoming rapidly terminally ill.

Highly active antiretroviral therapy (HAART); a combination of anti-retroviral drugs is associated with: increasing levels of CD4 cells, a decrease in incidence of opportunistic infections and increased survival and longevity in those infected. Unfortunately, there is currently no cure, and discontinuation of HAART is associated with severe illness and death

Increased survival of previously unwell, generally young, people who now wish to regain sexual function, poses new challenges.

Early studies before the advent of HAART suggest that HIV infected individuals had sexual difficulties. Erectile dysfunction, delayed ejaculation and loss of desire were more frequent in HIV infected men than non-HIV infected men. It was found that HIV infected men are more likely to report an adverse effect on their sex drive. Another group showed that patients with decreased CD4 counts reported more sexual problems over time, while patients with higher CD4 counts reported fewer sexual problems.

Testosterone replacement of men infected with HIV is associated with improvement in both erectile dysfunction and low sexual desire, which raises the question whether there is an organic component to sexual dysfunction in HIV. Indeed hypogonadism, a low testosterone level, is well described in men with HIV before the advent of HAART and low serum testosterone is a frequent finding, but to date the cause and mechanism of this is unclear.

Men in developed countries now have ready accessibility to HAART. The influence of HAART on sexual function has yet to be established. However a high prevalence of sexual dysfunction (including loss of desire and erectile dysfunction) has been well documented in HIV infected men. An increased level of the female hormone 17-beta oestradiol has been reported in men on HAART. However a direct relationship between HAART and altered hormone levels has not yet been established. Although

HAART is associated with sexual dysfunction and altered hormone levels, most studies have been retrospective and have not specifically shown a temporal link between introduction of HAART and abnormal oestradiol levels.

Lipodystrophy is pathological fat redistribution, shown by central obesity and peripheral (including facial) fat atrophy or wasting and is a recognized side effect of thymidine analogues (zidovudine, didanosine and stavudine - the older HAART drugs). The exact patho-physiological mechanism is unknown. The psychological effects of lipodystrophy are potentially devastating to patients' self esteem and self-image. Patients fear disclosure and often exhibit features of depression, which also affects sexual function. Thymidine analogues are used less and less now due to the introduction of newer HAART medicines. [Aromatisation of testosterone to oestrogen in pathological lipodystrophic tissue has been suggested as a biological mechanism for increased oestradiol levels in HIV infected men.]

Men who have sex with men (MSM) who have HIV, frequently report recreational use of PDE5 inhibitors (Viagra, Cialis and Levitra), injectable prostaglandin E (Caverject, Viridal) and even testosterone. Current evidence suggests that recreational use of these products (usually in combination with other mind altering substances, for example, Ecstasy) results in unprotected sex and onward transmission of HIV infection.

Sexual dysfunction in HIV infected women has not been as extensively studied. Recent studies suggest that low sexual desire, pain syndromes and sexual phobias are unsurprisingly very common in HIV infected women, as often they are from developing parts of the world living in the UK as asylum seekers who may have been subjected to sexual violence and have HIV infected children, or are concerned about infecting future children. They are often very bitter towards men since their HIV diagnosis, with fear of HIV disclosure, partners refusing to wear condoms, aggressive partners and an inability to conceive.

In summary, there are psychological and organic mechanisms, which may play a role in sexual dysfunction in HIV infected men and women. Treatment of particularly MSM with HIV should coincide with discussions around safe sex and HIV transmission.

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