



HIV Screening in Transgender Women in Western Population: Missed Opportunities?

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Abstract

Studies in selected transgender populations demonstrate a high HIV-prevalence, but data on this subject in the Dutch transgender population are lacking. In this report we illustrate the importance of a timely HIV diagnosis to prevent complications. Routine HIV testing should be considered as part of the work-up for people attending Dutch gender-identity clinics.

Transgender women worldwide seem to be disproportionately infected with HIV, but data on the HIV prevalence in transgender people in several countries in Europe, including the Netherlands are lacking. Unlike in other countries, standardized HIV screening is not performed in the transgender population in the Netherlands. We describe two cases of transgender women with HIV who would have benefitted from earlier HIV testing. This illustrates the need to perform HIV-screening at a low threshold in populations with suspected elevated risk to acquire a HIV infection. Further research on HIV epidemiology and risk factors among transgender people is needed to guide future HIV testing and prevention programs in the Netherlands.

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Keywords: Transgender female; Transgender woman; Transgender women; HIV.

Summary: Individuals attending Dutch gender-identity clinics would benefit from low threshold HIV testing to prevent immune-incompetence and associated complications.



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Introduction

Transgender people have a gender identity or gender expression that differs from their sex assigned at birth. The World Health Organization (WHO) identifies transgender people as a population at risk for HIV and recommends routine HIV testing. Factors associated with this increased risk of HIV infection include social and legal marginalization, needle sharing during illicit drug or hormone use, and unprotected receptive anal intercourse [1]. Transgender women (male sex assigned at birth, female gender identity) seem to have the highest risk: A systematic review and meta-analysis estimated the global pooled HIV prevalence in transgender women at 19.1% (95% CI 17.4-20.7) with a 49-fold greater odds of acquiring HIV compared with the general population [2]. However, the included studies were performed in a limited number of geographical areas and most included highly selected populations, such as sex workers. Few studies about HIV in transgender populations in Western-Europe have been published, including one study in transgender women sex workers in the Netherlands, showing a HIV prevalence of 18.8% [3]. Data on HIV in transgender men (female sex assigned at birth, male gender identity) are even more limited, and suggest a lower risk compared with transgender women. A recent systematic review on HIV prevalence in the transgender population in the United States found a HIV prevalence of 14.1% among transgender women and 3.1% in transgender men [4].

In the Netherlands, care for transgender people who wish to undergo transition is concentrated in two expertise centers. We aim to substantiate the need to assess HIV prevalence in a broad transgender population in the Netherlands by describing two cases. We would like to increase awareness among all health care providers who care for transgender people, to have a low threshold for offering an HIV-test.

Case summaries

Case 1

Patient 1 was a 33-year-old transgender woman, who was transferred to a university medical center with space-occupying lesions of the brain. She completed vocational school. She transitioned from male to female gender two years earlier. Two days before presentation to our hospital, she was admitted elsewhere with loss of consciousness. Computed Tomography (CT) and Magnetic Resonance Imaging (MRI) of the brain revealed multiple space-occupying lesions with ring enhancement and surrounding edema (Figure 1). HIV test results came back positive and treatment for suspected toxoplasmosis was started with intravenous administration of trimethoprim/sulfamethoxazole (TMP/SMX) 1440 mg three times per day. We performed stereotactic drainage of the right temporal abscess to reduce mass effect. Necrotic material was aspirated and a polymerase-chain reaction (PCR) test was positive for *Toxoplasma gondii*. Her CD4 count was 30/mm³. We continued treatment for cerebral toxoplasmosis with high dose TMP/SMX for six weeks, followed by secondary prophylaxis with TMP/SMX 960 mg twice daily. After three weeks, she was sufficiently recovered to start combination antiretroviral treatment (cART, including dolutegravir, emtricitabine and tenofovir disoproxil). Six months later, following intensive revalidation, she was doing well on cART with a CD4 count of 220/mm³ with minimal residual neurological deficits.

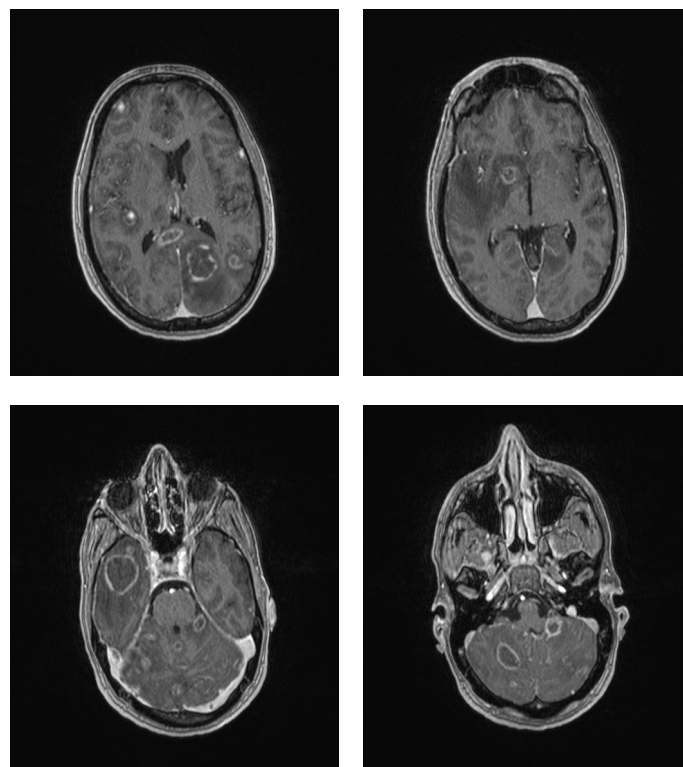


Figure 1: MRI T1 with gadolinium demonstrates multiple lesions in the occipital (top left), frontal (top right), and temporal lobe (lower left) and cerebellum (lower right).

Case 2

Patient 2 was a 26-year-old transgender woman who presented at our gender identity clinic to start gender-affirming treatment. Years earlier she used illicitly obtained estrogens and had been active as a sex worker. She finished secondary school. Her medical history was insignificant and at time of presentation she did not use any medication. She considered fertility preservation prior to her medical transition. Following the protocol for sperm freezing, HIV, syphilis and hepatitis B and C tests were performed and came back positive for HIV and syphilis. The nadir CD4 count was 580/mm³. We treated the (latent) syphilis infection with three once-weekly intramuscular benzathine benzylpenicillin injections and started cART with bictegravir, emtricitabine, and tenofovir alafenamide for her HIV infection. Six months later, she started gender-affirming hormone treatment and was doing well with an undetectable HIV-RNA and normal CD4 count of 760/mm³.

Discussion

We report two cases of HIV infection in transgender women. The first case illustrates the detrimental consequences of a late HIV diagnosis complicated by a severe opportunistic infection. In the second case, HIV testing was performed before the manifestation of opportunistic disease in the work-up for fertility preservation. However, without fertility preservation, a routine HIV test would not have been performed at our gender clinic.

In contrast with the situation in the USA, there is no opt-out screening procedure for testing HIV in the general population in The Netherlands. HIV tests are only offered to persons in groups at high risk for an HIV infection, in case a patient requests an HIV test, or to persons diagnosed with an HIV-associated illness (e.g., Kaposi sarcoma). These cases raise intriguing questions about barriers to HIV testing and whether opt-out HIV-

testing should be offered routinely to the whole transgender population. In the Netherlands, a significant proportion of patients with HIV present late with an impaired immune system (CD4 count below 400 cells/mm³) or even with Acquired Immune Deficiency Syndrome (AIDS); in 2018, this was the case for 41% of men who have sex with men (MSM), 66% of other men and 45% of women [5]. Such data are not yet available for all transgender people, but studies demonstrate a high level of unawareness of HIV status: A systematic review in transgender women in the United States found a self-reported versus a lab-confirmed HIV prevalence of 11.8% and 27.7%, respectively [6]. Similarly, among HIV positive transgender women working in the Dutch sex industry 74% was unaware of their serostatus [3]. This percentage of unawareness is substantially larger than the goal of UNAIDS, which states that 90% of persons should be aware of their HIV-status to curb the HIV epidemic [7].

Offering routine opt-out HIV testing in gender identity clinics is one way to facilitate early identification of patients with HIV and allow for timely treatment and reduction of onward transmission. Alternatively, tailoring HIV testing to subgroups within the transgender population most at risk for HIV is another strategy which may increase rates of testing. A study on perceptions related to routine HIV testing in young men in Canada illustrated that routine testing was perceived to alleviate barriers and HIV-related stigma, that would otherwise prevent them from attending voluntary testing [8]. However, data on the perceptions of transgender people are lacking.

Barriers to testing may include low risk perception, low educational level, costs, and (fear of) stigmatization. Several factors may contribute to a higher risk of HIV-acquisition in transgender people compared to the general population, including a higher prevalence of drug use, mental disorders such as depression, stigmatization in several domains including housing and employment, and harassment [6,9]. If present, these factors may put transgender people in a vulnerable position to negotiate safe sex and to access health services. However, information is lacking on the prevalence of these factors among the people attending our clinic, and whether these factors differ from other key populations, such as MSM. Previous studies have shown associations between stigma, discrimination, and delays in seeking care when testing HIV positive, and poor HIV treatment adherence among transgender women [10]. Hence, there is an important role for health care providers to create a safe environment, where sexual health can be addressed in a non-stigmatizing manner.

In conclusion, studies in selected transgender populations demonstrate a high prevalence of HIV infection, but data on the prevalence in the general Dutch transgender population are lacking. The two cases presented illustrate the importance of

a timely HIV diagnosis to prevent immune-incompetence and associated complications. Health care providers working with transgender people play a pivotal role in encouraging an open discussion about HIV risk factors and offering a low threshold to HIV testing. Routine opt-out HIV testing should be considered as part of the work-up for people presenting to gender identity clinics in the Netherlands. Further research on HIV prevalence within the transgender population, as well as perceptions of transgender people related to HIV testing, can provide input for designing and implementing future HIV testing and prevention programs.

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