PostScript

LETTERS

A case of a false positive result on a home HIV test kit obtained on the internet

There are two major reasons to diagnose asymptomatic HIV infection: to facilitate timely initiation of antiretroviral therapy, and to reduce the chance of onward transmission. A negative test offers an opportunity for preventive health promotion. All these aspects of testing require follow up by suitably trained personnel. We describe a case illustrating the hazards of self testing for HIV.

A 31 year old British heterosexual man attended the genitourinary medicine clinic requesting an HIV test. His last sexual contact was 3 weeks earlier with a female partner of 3 months. He had recently learnt that she had had a previous male partner who had had African sexual partners and therefore may be at higher risk of having HIV infection. He obtained a home HIV test kit (''Discreet'' HIV Home Test Kit, Seville Marketing Ltd) from a Canadian based internet site and this result was positive. On further inquiry he gave a history of sore throat and swollen cervical lymph nodes 2 months previously, although these symptoms had largely resolved. He had never tested for HIV before and had no other significant risk factors.

We requested an HIV test on the patient; the result was negative. We repeated the test after 3 months and again it was negative, confirming that the patient was not infected at the time he performed the home HIV test. The current HIV screening test used by our centre uses both HIV antibody and p24 antigen detection and is known to detect HIV infection 3–12 weeks after infection. Given that he was now symptom free with negative syphilis serology and at low risk for acquiring HIV, no further investigations were undertaken.

The patient had disposed of the test kit and it was not available for inspection. Unlike oral fluid kits recently licensed in the United States,[1] this kit required a fingerprick and a drop of blood to be applied to a reagent strip. The company claimed ''99.4% accuracy'' for the kit's results. From discussion with the patient it seemed that the result displayed by the testing kit evolved over time and had to be read between 3 minutes and 8 minutes after applying the drop of blood. The time dependency of the reaction made the kit liable to be misread.

We performed an internet search and found that websites selling the kit were no longer active. Furthermore, a US Federal Trade Commission restraining order had been placed on the kit 2 days before the patient presented to our clinic. As well as finding the company to be in breach of US law by selling the kit in the United States, the Centers for Disease Control and Prevention had tested the accuracy of the kit. ''Results of the testing, based on the package instructions, 'changed dramatically' during the 15 minutes that the results were reported. After 3 minutes, 15.4% of the kits gave erroneous readings; after 8 minutes, 29.6% registered inaccurate results; after 15 minutes, 59.3% of the kits gave inaccurate results. Moreover, the kits showed both inaccurate HIV positive results and inaccurate HIV negative results.''[2]

This case is important because the use of the internet to obtain HIV test kits is likely to increase. One study in California found fairly high levels of interest in instant home HIV tests[3] and it is not difficult to locate kits for HIV testing and other diagnostic services on the internet. A home HIV test kit using oral fluid has been licensed in the United States and a home blood collection and telemedicine system is also available,[4 5] but these are not available legally in the United Kingdom or Europe. All healthcare professionals involved in counselling and testing patients for HIV should be aware that self taken HIV tests may be inaccurate and confirmatory testing in an appropriate laboratory should be performed before making a diagnosis of HIV infection.

Although access problems to sexual health services have rightly engendered innovative approaches to diagnosis and management, there should be a note of caution on using new HIV technologies of rapid testing in non-healthcare settings and legalisation of home and over the counter HIV testing kits.[6] It is imperative that clinical governance issues are addressed. Medicolegal consequences are important, but of greater significance is the distress to individuals and their partners who are wrongly diagnosed or inappropriately reassured through the use of poorly performing kits.

Contributors

LH saw the patient before and after testing and wrote the case report; AR suggested the case be reported and reviewed/redrafted the manuscript.

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L J Haddow, A J Robinson
The Mortimer Market Centre, Capper Street, London WC1E 6AU, UK

Correspondence to: Dr Lewis J Haddow, The Mortimer Market Centre, Capper Street, London WC1E 6AU, UK; lewis.haddow@camdenpct.nhs.uk

Ethics: A signed statement of consent to publish was obtained from the patient.

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Primary HIV infection masquerading as Munchausen's syndrome

Since 1986 there have been several case reports describing factitious HIV infection.[1] We have seen two acute presentations where the patients claimed to have chronic HIV infection, were found to be HIV antibody negative but on closer evaluation were found to be seroconverting with primary HIV infection (PHI). We believe that the patients were motivated by the psychological need to assume the sick role, fulfilling the principal feature of a factitious disorder, rather than malingering.

Case 1

A 40 year old homosexual man presented to HIV services with an acute diarrhoeal illness, claiming to have been diagnosed as HIV positive at another hospital 2 years previously. A third generation HIV test, Abbott AxSYM HIV 1/2 gO (antibody only), was negative. He returned 1 month later, still denying any sexual risk, and requested a repeat HIV test, which was again antibody negative but reactive with the fourth generation assay, Abbott HIV Ag/Ab Combo (antibody and p24 antigen combined).

Case 2

A 39 year old homosexual man presented to the accident and emergency department with fever, ulcerative gingivitis, and maculopapular rash, claiming to have been diagnosed HIV positive 4 years previously. He reported safer sex with 30 casual male partners in the previous 3 months and stated that his regular male partner was HIV negative. He was found to have had four negative HIV tests in the previous 2 years at this hospital and numerous negative HIV tests at other hospitals. The third generation HIV test was negative. The following day, however, a fourth generation test was reactive.

Comment

The ability to diagnose PHI has always required a high index of suspicion and a keenly taken history, and if missed the next opportunity for testing may not be until years later when the patient presents in ill health, with symptomatic HIV or even AIDS.[2] Clearly, a missed diagnosis of PHI may have a deleterious effect on the individual's prognosis, but there may also be significant public health consequences, as early infection is a core factor in the propagation of an epidemic[3 4] because of high viral burden and de facto risk taking sexual behaviour. Indeed, early detection of PHI probably represents the