

Letter to the Editor

Dear Sir,

Human bite and HIV transmission

The concentration of human immune-deficiency virus (HIV) in the saliva of a carrier is low. As a result, human bite is not considered to be a likely route of HIV infection transmission, and this is even less likely because of the presence of HIV inhibitor in the saliva.¹ There has been no well documented HIV transmission through human bite. The few reported cases of HIV sero- conversion following human bite suggest that there must be blood in the mouth of the biter and a discontinuity in the body part of the bitten for transmission to occur ^{2,3}.

Case Report

A 30-year old married woman para 6+0 (all children alive) was referred to the University of Port Harcourt Teaching Hospital at 38 weeks of gestation from a private clinic on account of HIV sero-positivity following screening at 18 weeks gestation. About a year before her index pregnancy, she had tested HIV sero-negative when she donated blood for her sick relative. Shortly thereafter, during a fight, she was bitten on her upper lip by her sister- in-law who was a known HIV positive sex commercial worker. The injury bled and necessitated suturing but it healed primarily.

Her antenatal period was complicated by gastroenteritis and upper respiratory tract infection for which she was treated. Her previous deliveries were all in the referring clinic where routine HIV testing consistently showed sero-negative results. Her husband was also sero-negative. She had no history of blood transfusion, surgical intervention or addictive drug injection. She denied having any other sexual partner(s).

She was essentially normal on physical examination. She continued her antenatal care and delivered a live baby vaginally at 40 weeks gestation having refused elective caesarean section. She was placed on highly active anti-retroviral therapy (HAART). The baby had syrup nevirapine within 24hours of birth. She was lost to follow up.

Human bites are serious injuries that may lead to infection⁴. A number of bacteria and viral diseases can be transmitted through human bite, for example, herpes simplex virus (HSV), hepatitis B virus (HBV) and hepatitis C virus (HCV).

While blood (and body fluids containing visible blood), semen and vaginal secretions are considered potentially

infectious for HIV, faeces, nasal secretions, saliva, sputum, sweat, tears, urine and vomitus are not considered infectious unless they contain blood. The risks of HIV transmission through them is extremely low.

The patient we describe above was bitten by a commercial sex worker who was known to be HIV sero-positive. The patient had until then been sero-negative, as evidenced by the previous screening test conducted by the referring clinic. The injury bled, indicating that the recipient's tissues were damaged. The evidence that was lacking was the presence of blood in her sister-in-law's mouth. In a circumstance such as this, HIV typing on both the biter and the bitten could demonstrate whether the recipient's virus was likely to have originated from the attacker. Unfortunately the necessary

technologies for such a test were not available in this case.

There was no other risk factor elicited in this patient to which her sero-conversion could be attributed. This case highlights the possibility that HIV may be transmitted by a human bite.

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References

1. Richman KM, Rickman LS. The potential for transmission of human immunodeficiency virus through human bite. J Acquir Immun Defic Syndr 1993; 6:402-06.
2. Vidmar L, Polijak M, Tomazic J, Seme K, Lewis I. Transmission of HIV-1 by human bite. (Letter) Lancet 1996;347:1762-63.
3. Patti MT, Bentley M, Jagger J. Risk of HIV-1 infection after human bite. Lancet 1996; 348:1512.
4. Liston PN, Tong DC, Firth NA, Kieser JA. Birth injuries: pathophysiology, forensic analysis and management. NZ Dent J2001;97(128):58-63.