The Overlapping Histories of Acquired Immune Deficience Syndrome (AIDS) and Artificial Insemination by Donor (AID)

Robert Pralat, February '14 – available to download as a PDF.

My visit to the Mortimer Market Centre was well-timed: this year marks the thirtieth anniversary of two important events for both those who work on HIV/AIDS and those whose work relates to assisted reproduction. For the former, 1984 is the year when the American scientist Robert Gallo announced that he had discovered the cause of AIDS, which two years later was named the human immunodeficiency virus. For the latter, particularly for those based in the UK, 1984 is meaningful because it was then that the so-called Warnock Committee, chaired by the philosopher Mary Warnock, published its report – the culmination of a two-year inquiry into human fertilisation and embryology.

It is noteworthy that news about initial HIV infections and AIDS-related deaths hit international headlines around the same time as stories about 'miracle babies' born through in vitro fertilisation. Both the identification of HIV and the more expansive clinical application of IVF and gamete donation prompted the rapid development of new medical and pharmaceutical industries, as well as massive research infrastructures that concentrate around them. Over the past three decades, treatments for HIV and infertility have improved markedly. Medical advancements have enhanced health prospects, alleviated suffering and given hope. But they have also created new categories of patients and led to challenges and dilemmas previously unheard of.

Readers of this blog may be aware of the impact HIV has had on infertility treatment. A significant consequence of the AIDS epidemic, especially in the United States, has been a change in the practice of donor insemination. As documented by researchers such as Cynthia Daniels and Rene Almeling, up until the 1980s, it was commonplace for physicians to use fresh semen when helping women conceive with donor sperm. Although cryopreservation, the process of freezing and thawing sperm, had already been in use, there was scepticism about its effectiveness. Further concerns pertained to the consequences of relinquishing partial control of the reproductive process to commercial sperm banks (these, unlike physician-led services, were able to store and manage large amounts of frozen specimens). Had it not been for the onset of the AIDS epidemic, the resistance towards the use of cryopreserved sperm would likely have persisted.

However, between 1986 and 1989, six women in the United States were infected with HIV as a result of artificial insemination. Although the use of fresh semen was not banned, professional guidelines and fear of further infections led to a more widespread use of cryopreservation. Freezing eliminated the risk of infection as donated semen was quarantined for six months, after which the donor could be retested for HIV (later, the tests improved, allowing a quicker detection of the virus). The growing popularity of sperm freezing led to an increasing corporatization of the service and, as founders of some of the first commercial sperm banks pointed out in the study by Almeling, AIDS was a key moment of 'market expansion'.

In the United States and elsewhere, the sperm banking industry grew quickly, diminishing the role of small providers. Initially, most sperm banks did not accept lesbians or single women as clients. However, this restriction gradually changed as treatment for male-factor infertility improved, reducing the customer base of straight couples. Specifically, the introduction in the early 1990s of intracytoplasmic sperm injection (ICSI) offered the possibility of genetic fatherhood to a substantial proportion of men (for example, those with a low sperm count) who would have otherwise had to rely on donor sperm. Already-established sperm banks began to lose their clients, which meant that they had to revisit their customer inclusion criteria. This, coupled with a growing interest in donor insemination among non-heterosexual women, eventually led to the current scenario where lesbians constitute about a third of sperm bank users. What drew more lesbians to sperm banks was a growing wariness of undertaking insemination with semen from a male gay friend without clinical supervision – a practice that had become very popular in sexual minority communities by the 1980s.

For a long time, gay men were, and to a certain extent still are, rejected by sperm banks as potential donors. This is not only because of being regarded as a high-risk group for HIV infection, but also because homosexuality is associated with a kind of masculinity that is not necessarily in demand (just like there is little demand for donors who are short or overweight). This commodification of sperm is less prevalent in the UK, where sperm donors cannot donate anonymously and are unlikely to be motivated by money, as payments must not exceed £35 per sample. Thus, the supply of sperm in the UK is limited. Here, gay men can donate sperm – as long as their HIV-negative status is confirmed.

Although necessary and justified, the strict clinical criteria safeguarding assisted reproduction from HIV risk may give a false impression that gametes from HIV-positive people unavoidably result in HIV-positive babies. However, this is not the case. By carefully managing the use of antiretroviral drugs, men and women living with HIV can now conceive with minimal risk of transmitting the virus to their baby or their HIV-negative partner. In pregnancies of HIV-positive women, mother-to-child transmission rates are now below 1%, while timed unprotected intercourse and sperm washing almost eliminate the likelihood of infection where the man is HIV-positive.

With life expectancy similar to that of the rest of the population, and 75% of those currently infected in their childbearing years, it is not surprising that many people living with HIV consider and pursue parenthood. As such, clinicians working with HIV-positive patients are increasingly expected to provide a service that incorporates sexual and reproductive health. In this context, access to reproductive healthcare (including adequate, evidence-based advice) is essential, not only because there is nothing inherently unacceptable about an HIV-positive person becoming a parent, but also because a lack of relevant support is more likely to lead to conceptions that involve greater risk – and, as a result, to more people facing stigma and requiring (expensive) HIV treatment.

The topic of reproduction in HIV clinics and HIV-related medical journals has thus far been largely limited to heterosexual family planning. However, with the prevalence of HIV among gay men at an all-time high and gay fatherhood becoming more publicly visible and socially accepted, this is likely to change. The change may be facilitated by the fact that the demand for sperm among lesbians is growing, which may signal – if the recent adverts on the London Underground are to be believed – 'the real banking crisis'.

A longer version of this post has been published in *Reproductive BioMedicine Online*.

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