A Tampon-Like HIV Prevention Method for Women?

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In the future, women's HIV prevention efforts may be as familiar a process as inserting a tampon, thanks to research showing that water-soluble electrospun fibers can quickly dissolve and deliver an antiretroviral to the vagina, The Washington Post reports. Publishing their findings in Antimicrobial Agents and Chemotherapy, researchers at the University of Washington in Seattle infused Selzentry (maraviroc) into electrospun fibers that are 200 times narrower than a human hair, to act as pre-exposure prophylaxis when inserted into the vagina. (The study was not in humans, however.)

POZ/AIDSmeds first reported about this research after the investigators published a previous paper in November 2012.

The researchers believe that this delivery method will prove much more effective than other microbicides currently in development. Insertable films and tablets often take 15 minutes to fully dissolve, and they raise the risk of abrasions in the epithelial tissues of the vaginal lining during sex. Gels, on the other hand, may require a high volume in order to deliver enough drug, and they can leak. The electrospun fiber, which could be wrapped into the shape of a tampon, can carry a high dose of Selzentry, thanks in part to the cloth's high surface area to volume ratio. It can release the drug in less than six minutes when a wetting agent is added.

It may be as long as a decade before this method of HIV prevention makes it to market.

There is also potential for the cloth's use as prevention for various bacterial, fungal or other viral infections.

To read the study abstract, click here.

To read the Washington Post story, click here.