Two Studies Raise Hopes for Female-Empowered HIV Prevention

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After many years of failures, recent studies have moved researchers closer to a form of HIV prevention that women can use discreetly. At the Conference on Retroviruses and Opportunistic Infections (CROI) in Boston, researchers presented the results from two early studies of such prevention techniques. One study was on the first vaginal ring to use not one but two antiretrovirals (ARVs) as an arsenal against the virus, and the other study looked at a vaginal film as a potential alternative to a microbicide gel.

Called MTN-013/IPM 026, the Phase I study on the combination ring examined the safety and tolerability of a monthly ring containing the ARVs dapivirine and Selzentry (maraviroc). A group of female study participants randomly received either the dapivirine-Selzentry ring, a ring containing just Selzentry, or a placebo ring without either of the drugs. Biopsied cervical tissue taken from the women who used the combination ring showed that the drugs protected the tissue against HIV infection when exposed to the virus. The findings support the current Phase III study of a dapivirine-only ring that is being conducted in Africa.

While the researchers detected high levels of dapivirine in the blood, vaginal fluids and cervical tissues of those using the combination ring, Selzentry was only detectable in the vaginal fluid and in some women's cervical tissue. The investigators theorize that a higher dose of Selzentry may be needed for the drug to have an appreciable effect.

The FAME-02 Phase I study examined the safety, drug absorption and drug distribution of a dapivirine film, comparing these qualities with those of a gel containing the drug. Researchers assigned 60 women to use a dapivirine film or gel, or placebos of the respective delivery methods, for a week. The researchers drew blood and tissue samples within two hours following the final dose. Then they exposed the tissue samples to HIV.

The researchers found that the gel and film delivered dapivirine to the bloodstream comparably. The gel led to higher levels of the ARV in the vaginal tissue than the film, but each method protected against HIV transmission.

To read a press release on the studies, click here.