New male birth control gel takes effect sooner than similar contraceptive methods

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Credit: Andrea Piacquadio from Pexels

A novel male contraceptive gel combining two hormones, segesterone acetate (named Nestorone) and testosterone, suppresses sperm production faster than similar experimental hormone-based methods for

male birth control, according to a new study.

Results from an ongoing multicenter phase 2b clinical trial will be presented Sunday at ENDO 2024, the Endocrine Society's annual meeting in Boston.

"The development of a safe, highly effective and reliably reversible contraceptive method for men is an unmet need," said senior researcher Diana Blithe, Ph.D., chief of the Contraceptive Development Program at the National Institutes of Health (NIH) in Bethesda, Md. "While studies have shown that some hormonal agents may be effective for male contraception, the slow onset of spermatogenic suppression is a limitation."

The study included 222 men who completed at least 3 weeks of daily treatment with the contraceptive gel. The gel contained 8 milligrams (mg) of segesterone acetate and 74 mg of testosterone. Segesterone acetate is an ingredient of the Annovera vaginal birth control ring. Men applied the gel once daily to each shoulder blade.

Early in the study, the researchers measured for suppression of sperm production by obtaining sperm count tests at 4-week intervals. The threshold deemed effective for contraception was 1 million or fewer sperm per milliliter of semen, Blithe noted.

Most study participants (86%) reached this sperm count by week 15, the researchers reported. Among those men, sperm production was suppressed at a median, or midpoint, time of less than 8 weeks of segesterone-testosterone treatment. Blithe said prior studies of male hormonal contraceptives given by injections showed a median time between 9 and 15 weeks for sperm output to become suppressed.

"A more rapid time to suppression may increase the attractiveness and

acceptability of this drug to potential users," Blithe said.

Testosterone treatment alone decreases sperm production, with a median time of 15 weeks but the addition of segesterone acetate speeds the time and lowers the dose of testosterone needed to suppress sperm production over testosterone alone, she said. In the daily segesterone-testosterone gel regimen, blood levels of testosterone are kept in the physiologic range to maintain normal sexual function and other androgen-dependent activities.

The sperm suppression stage of the international phase 2b trial of segesterone-testosterone gel is complete. The study continues to test the contraceptive's effectiveness, safety, acceptability and reversibility of contraception after treatment stops.

Provided by The Endocrine Society

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