

# Biomarkers can predict whether women with endometriosis will respond to the first-line treatment

23 October 2018

Biomarkers can predict whether women will respond to the first-line treatment for endometriosis, an extremely painful condition in which the tissue usually found inside the uterus grows in places it shouldn't, according to a new study published in the Endocrine Society's *Journal of Clinical Endocrinology & Metabolism*.

Endometriosis is a debilitating gynecologic disease that causes [pelvic pain](#) and, in some cases, infertility. It is estimated to affect [one in 10 reproductive-aged women](#), and 50 percent to 60 percent of women and adolescents with pelvic pain and/or unexplained infertility. Progestin-based therapies such as oral contraceptives are the first-line treatment for managing endometriosis-associated pain. However, response to progestins is unpredictable and varies among women.

"Receptor status in endometriosis could be used in a similar way to how estrogen receptor and [progesterone](#) receptor status is used in breast cancer for personalizing treatment options," said study author Valerie A. Flores, M.D., of the Department of Obstetrics, Gynecology and Reproductive Sciences, Yale School of Medicine, Yale University, in New Haven, Conn. "Such an approach to endometriosis management could better determine which medication each individual patient responds to and minimize delays in providing the optimal medical [therapy](#)."

In the retrospective cohort study, researchers studied 52 subjects with endometriosis and found that progesterone receptor levels were an important predictor of progesterone responsiveness in endometriosis. Hormonal therapy and surgery are the two cornerstones of endometriosis management, and recurrence rates are high. Having a method to determine a patient's response to progestin-based therapy could help

determine the best treatment options and ideally reduce the risk of the disease recurring.

"Examining progesterone receptor status in endometriotic lesions may allow for a novel, targeted approach to treating [endometriosis](#)," Flores said.

The study, "Progesterone Receptor Status Predicts Response to Progestin Therapy in Endometriosis," will be published online, ahead of print.

Provided by The Endocrine Society

APA citation: Biomarkers can predict whether women with endometriosis will respond to the first-line treatment (2018, October 23) retrieved 26 June 2019 from <https://medicalxpress.com/news/2018-10-biomarkers-women-endometriosis-first-line-treatment.html>

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