Eutopic endometrium in women with endometriosis: ground zero for the study of implantation defects.

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Abstract

The endometrium is ground zero when it comes to understanding how implantation occurs and how it might also fail, resulting in infertility or pregnancy loss. Many of the causes of diminished uterine receptivity are acquired during a woman's lifetime. Endometriosis, a major inflammatory disease affecting women, is also a leading cause of
infertility and miscarriage. Once established, the inflammatory changes can, in some women, lead to progesterone resistance and downstream changes in endometrial gene expression. Much is now known about how inflammation translates to progesterone resistance and infertility, but much remains to be learned. In this review we provide an overview for understanding how the endometrium becomes dysfunctional, what biomarkers may hold promise for the diagnosis of endometriosis, and how progesterone resistance leads to infertility. Understanding the pathophysiology of this disease will likely lead to better treatment options.

Keywords

adhesion - endometriosis - inflammation - implantation - progesterone - biomarkers