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Adenomyosis: fertility and obstetric outcome. A comprehensive literature review.

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Abstract

Adenomyosis is a benign condition characterized by the presence of endometrial glands and stroma deep within the myometrium. In recent years, the potential negative impact of adenomyosis on in vitro fertilization clinical outcomes has gained momentum, as well as, the possible link of this condition with obstetrical complications. The aim of this narrative review is to elucidate the possible association between uterine adenomyosis, infertility, and poor obstetrical outcomes. Several theories have been proposed to clarify the potential harmful impact of adenomyosis on fertility, such as a functional and structural defect of both the eutopic endometrium and the inner myometrium, an impairment of the uterine system of sperm transport, the presence of uterine dysperistalsis and of high levels of free radicals in the uterine milieu of women with the disease. Numerous studies have demonstrated that adenomyosis exerts a detrimental effect on in vitro fertilization outcomes, reducing pregnancy and live birth rates and increasing miscarriage rate. Regarding pregnancy outcomes data are scarce; however, epidemiological studies suggest that women with uterine adenomyosis could be at increased risk of numerous obstetrical complications, in particular, preterm birth and preterm premature rupture of membranes. These preliminary results are valuable for preconception and prenatal counseling of women with adenomyosis and suggest that this category of women necessitate a more cautious prenatal management than previously expected.