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Impact of hormonal and inflammatory processes on pregnancy outcome in infertility and reproductive diseases

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Abstract (600 words):

The identification of maternal or foetal factors linked to the risk of adverse obstetric outcomes is a major challenge in modern women's health. Infertility and reproductive illnesses such as endometriosis, adenomyosis, polycystic ovary syndrome, and uterine fibroids, according to a rising number of studies, can have a deleterious impact on pregnancy from implantation to term. Furthermore, many individuals with reproductive diseases and/or infertility require assisted reproductive technologies, which might have an impact on pregnancy outcomes on their own. As a result, separating the role of certain reproductive diseases or infertility to poor pregnancy outcomes from the therapies required for pregnancy success is a tough challenge. Furthermore, women are deferring starting a family until later in life, resulting in a higher likelihood of infertility due to advanced maternal age, which is an additional obstetric risk factor. As a result, women with reproductive abnormalities are more likely to have several risk factors that contribute to poor obstetric outcomes. To ensure optimal treatment of their reproductive health, it is critical to understand the origins of this effect and design new care pathways. PCOS is characterised by hyperandrogenism and ovarian dysfunction, and is one of the most frequent conditions in women of reproductive age. About half of all women with PCOS are overweight or obese, and their insulin sensitivity is impaired. PCOS has a deleterious impact on fertility and pregnancy outcomes, according to growing data. The major events of female reproductive function, such as ovulation, menstruation, embryo implantation, and pregnancy, are all linked to hormones and inflammatory pathways. Increased evidence suggests that hormonal imbalances and a state of hyperinflammation might cause immune-endocrine crosstalk to be disrupted between the endometrium, myometrium, and cervix, as well as between the decidua and trophoblast, predisposing to pregnancy difficulties.

Importance of Research (200 words):

The major events of female reproductive function, such as ovulation, menstruation, embryo implantation, and pregnancy, are all linked to hormones and inflammatory pathways. Increased evidence suggests that hormonal imbalances and a state of hyperinflammation might cause immune-endocrine crosstalk to be disrupted between the endometrium, myometrium, and cervix, as well as between the decidua

and trophoblast, predisposing to pregnancy difficulties. The goal of this study was to see if inflammatory mechanisms as well as hormonal and metabolic dysfunctions in the uterine and placental tissues in women with uterine fibroids, endometriosis, adenomyosis, PCOS, and unexplained infertility could play a role in pregnancy disorders.

Biography (200 words):

Luliia Soder is the Director of Surgical Oncology at Aurora Health Care in Wisconsin. He has lectured nationally and internationally and has published on many aspects of cancer care. He attended medical school and completed his surgical residency in New York, and completed a surgical oncology fellowship at Ohio State. He has been named to the Top Docs list and has won awards for the development of multidisciplinary cancer care programs.

Information of Institute (200 words):

Advocate Aurora Health (AAH) is a non-profit health care system with dual headquarters located in Milwaukee, Wisconsin, and Downers Grove, Illinois. As of 2021, the AAH system has 26 hospitals and more than 500 sites of care, with 75,000 employees, including 10,000 employed physicians. The health system formed as a result of a merger between Illinois-based Advocate Health Care and Wisconsin-based Aurora Health Care. AAH is a teaching affiliate of the University of Wisconsin School of Medicine and Public Health.

Institution:

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