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Reproductive Outcomes after Medical Evacuation of First Trimestric Abortion and Its Relation to Subclinical Endometritis

Thesis

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By

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Summary

Endometritis can be defined as the inflammation of the endometrial lining of the uterus. Endometritis is categorized into pregnancy-related and pregnancy-unrelated. If the endometritis is unrelated to pregnancy, it can be considered as a part of pelvic inflammatory disease (PID).

Women are particularly vulnerable to endometritis after birth or abortion as a result of the opened cervical os, presence of large amounts of blood and debris, and uterine instrumentation.

Early pregnancy loss is defined as the termination of pregnancy before 20 weeks' gestation and or with a fetal weight of < 500g. The overall miscarriage rate is reported as 15-20%. Approximately 5% of couples trying to conceive have 2 consecutive miscarriages, and approximately 1% of couples have 3 or more consecutive losses.

Our study was carried on to determine the prevalence of subclinical endometritis and to evaluate the endometrial histology in patients with delayed conception and unexplained recurrent miscarriage following the medical evacuation of first trimestric abortion, together with any possible impact on reproductive capacity.

The study was a cross-sectional observational study conducted in the obstetrics and gynecology department in Fayoum university surgical hospital after approval of the research and ethical committee in the peroid from May 2018 to February 2020. The study comprised 100 women who had a history of unexplained delayed conception for at least 1 one year and or recurrent miscarriges. The patients were compartmentalised equally into group A which included women who were subject to medical evacuation by misoprostol due to a first trimestric abortion and

group B which included women who were subject to surgical evacuation due to a first trimestric abortion.

Detailed history was taken from all patients. Qualitative beta-human chorionic gonadotrophin (B-HCG), pelvic examination and trans-vaginal ultrasonography (TVS) were requested.

Endometrial sampling, by Hysteroscopy and Pipelle, was done to all patients. After sampling, biopsies were stained with H&E and CD-138 to diagnose the existence of chronic endometritis through the presence of plasma cells

A statistically insignificant difference existed between group A and group B regarding age, gravidity, parity, and residence. A highly statistically significant difference existed between group A and group B regarding the period of delayed conception after evacuation (P-value = 0.001). The median period of delayed conception after evacuation was 2.5 years in group A, while it was 2 years in group B. Our data showed the statistically significant difference between group A and group B regarding the number of cases of delayed conception and the cases of recurrent miscarriages after evacuation (P-value = 0.002).

Delayed conception was significantly more prevalent in group A than in group B (82% vs. 54%, respectively). However, group B sustained importantly recurrent miscarriage when compared with group A. (46% vs. 18%, respectively).

A statistically insignificant difference existed between group A and group B regarding H&E examination by Hysteroscopy and Pipelle and immunostain examination by Pipelle (P-value > 0.05), while a statistically significant difference was between group A and group B

regarding Immunostain examination by Hysteroscopy (P-value= 0.029). In addition, endometritis was more significantly evident in Immunostain examination by Hysteroscopy in group B than in group A (40% vs. 20%, respectively).

A statistically insignificant difference was between Hysteroscopy and Pipelle in group A regarding H&E examination and Immunostain examination (P-value > 0.05).

Our data significantly pointed to the diagnostic accuracy of Immunostain examination by Hysteroscopy (P-value = 0.028).

Sensitivity, specificity, -ve prediction, +ve prediction, accuracy, and the likelihood ratio of Immunostain examination by Hysteroscopy were 40, 80, 66.7, 57.1, 63.14%, and 4.83, respectively.

To conclude, chronic endometritis was unlikely to delay the occurrence of conception despite evidence of existence. Notwithstanding, chronic endometritis could follow a relatively invasive intervention; accordingly, it might affect maintaining conception.