

Intragestational Tissue Aspiration and Methotrexate Instillation for Caesarean Scar Ectopic Pregnancy

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ABSTRACT

Background: Caesarean scar pregnancy (CSP) is defined as when a blastocyst implants on a previous Caesarean scar. Early diagnosis by ultrasonography leads to prompt management which improves the outcome and allowing preservation of fertility. Any delay in treatment can lead to maternal morbidity and mortality. The combination of local methotrexate with simultaneous aspiration of gestational tissues under ultrasound guidance seems optimal. **Case Presentation:** A 32-year-old woman presented with chief complaint of six weeks of amenorrhea with intermittent bleeding per vaginam for two weeks. She was G3P2 with one Caesarean delivery in 2012. Physical examination and per speculum examination were normal. On investigation, urine pregnancy test was positive, other investigations were normal. B-HCG level was 44647 IU/L. Trans-vaginal ultrasound revealed gestational sac within the previous scar. Yolk sac and small foetal pole noted with no foetal heart activity. Intramuscular Methotrexate 50mg administered; however, B-HCG level maintained. Second dose of intramuscular Methotrexate 50mg was given, and B-HCG level was reducing. Patient then presented with bleeding per vaginam and abdominal pain. Pelvic ultrasound shows a larger gestational mass. An ultrasound-guided ectopic fluid aspiration and Methotrexate instillation was done. A transvaginal ultrasound was done a month later revealing significant reduction in gestational mass and the level of B-HCG has dropped. **Discussion:** Early diagnosis of CSP is important as the diagnosis is usually missed. Combination of local Methotrexate and simultaneous aspiration gestational tissue can bring major benefit to patient's outcome. **Conclusion:** Incidence of CSP has been increasing in trend. More local data should be collected and analysed. As demonstrated, infiltration of Methotrexate into the gestation sac under ultrasound guidance is a better option.

Differential Cytokines and Chemokines Genes Expression in Eutopic and Ectopic Endometrial Tissues of Women with Endometriosis

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ABSTRACT

Objective: To investigate selected cytokine and chemokines gene expression level in the eutopic endometrium and ectopic endometriotic tissues of women with endometriosis compared with women without the disease. **Design:** This was a prospective study conducted in the Department of Obstetrics and Gynaecology, UKM Medical Centre from 1st June 2016 to 30th May 2017. **Methods:** A total of 21 participants (10 and 11 samples in the control and endometriosis group respectively) were recruited. The control group had macroscopically normal peritoneum during surgery. All endometrial tissues from both groups were histologically confirmed using the immunohistochemistry method. The gene expression level of the five selected cytokines and chemokines (IL-1 β , IL-6, IL-8, MCP-1 and RANTES) in endometrial and endometriotic tissues were determined using quantitative real time polymerase chain reaction (qRT-PCR). **Results:** A significantly higher mRNA expression of IL-1 β , IL-6, IL-8 and MCP-1 were observed respectively with $p < 0.05$, $p < 0.05$, $p < 0.01$ and $p < 0.0001$ in the endometriotic lesions when compared to matching eutopic tissue. Further analysis during different menstrual cycle showed that only IL-1 was significantly higher during proliferative phase compared to secretory phase. There was no significant difference in the eutopic endometrial mRNA expression of IL-1 β , IL-6 and IL-8 when compared with endometrial mRNA expression from controls. MCP-1 was the only soluble marker found to be both significantly increased in the ectopic endometriotic lesions and its' matching eutopic tissue. It is also increased in both proliferative and secretory phase. No significant difference was observed for RANTES between the two groups. **Conclusion:** This study has demonstrated significant increased mRNA expression of IL-1 β , IL-6, IL-8 and MCP-1 in the endometriotic tissues compared to matching eutopic endometrial tissue, indicating a different inflammatory response in the pelvic cavity of woman with endometriosis.