



Immunohistochemical study of the immunological markers IL-1 β and IL-6 in placental tissues in recurrent pregnancy loss

T Papamitsou, O Toumpa, T Dimou, **D Kavvadas**, A Papanastasiou, P Anastasiadou, S Karachrysafi, A Sioga

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OBJECTIVE: To examine the relationship between the expression of the cytokines interleukin-6 (IL-6) and IL-1 β in human endometrial tissues in the case of recurrent pregnancy loss (RPL) of unexplained etiology.

METHOD: The RPL study group consisted of 30 women who miscarried at least three times during the first trimester of pregnancy, and the control group consisted of 30 women who underwent elective termination of pregnancy during the first trimester. The abortion material was studied using immunohistochemical methods on specimens taken from the decidua parietalis, decidua basalis and trophoblast. Monoclonal antibodies against IL-1 β and IL-6 were used. Statistical Package for Social Sciences (SPSS), version 25 was used for the statistical analysis.

RESULTS: IL-1 β and IL-6 expression was examined in the deciduabasalis, decidua parietalis and trophoblast sections in both the RPL and the control groups. No difference was observed between the RPL and the control groups in IL-1 β expression. Regarding IL-6, a difference in color intensity was detected between the two groups in the decidua basalis ($p=0.048$) and the trophoblast ($p=0.044$), but not in the decidua parietalis.

CONCLUSIONS: The study results did not support the involvement of IL-1 β expression in RPL, but IL-6 expression appeared to have a role in its pathogenesis.