3 - Clinical Anatomy

OC-075 - (23928) - UTERINE NK CELLS: FROM MULTI-CELLULAR CLUSTERS, THROUGH RECURRENT IMPLANTATION FAILURE TO FUTURE CLINICAL PERSPECTIVES

I. Varga (Slovakia)[1]; L. Lapides (Slovakia)[1]; P. Babál (Slovakia)[2]

1 - Institute of Histology and Embryology, Faculty of Medicine, Comenius University; 2 - Institute of Pathology, Faculty of Medicine, Comenius University

Ivan Varga
Bratislava

Lenka Lapides
Bratislava

Pavel Babál
Bratislava

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In recent years, views on the importance and functioning of the immune system during blastocyst implantation, and subsequent pregnancy have changed significantly. Uterine Natural Killer (uNK) cells are the most abundant cell type at the maternal–fetal interface during early pregnancy. The exact mechanisms of how uNK cells may contribute to normal implantation but also to recurrent miscarriages are still obscure and elusive.
This study includes data from 387 women with recurrent pregnancy loss and recurrent implantation failure, with a focus on the formation of multi-cellular clusters of uNK cells. Endometrial biopsies were collected dominantly by the Pipelle endometrial sampling. Primary anti-CD56 antibodies were applied to detect uNK cells.
We found significant correlations between uNK cells clusters and number of uNK cells. There was no correlation between clusters and pregnancy rate, no correlation of the number of uNK cells and sampling site, no seasonal changes of the number of uNK cells, no correlation between low uNK cells and abortions, no correlations of medications of the patient and number of uNK cells, and no correlation of the positivity of food intolerance on the number of uNK cells.
uNK cell research needs to address several issues before it can be implemented clinically, namely the standardization of uNK cell evaluation, more profound insights into how uNK cells contribute to immune homeostasis and immune suppression. Acknowledgement. This research was funded by a grant from The Slovak Ministry of Education No. VEGA 1/0625/23, entitled “Immunologically active endometrial cells in the context of embryo implantation”.

Palavras-chave : uterine NK cells, infertility, reproductive immunology