The international Academy of Human Reproduction

17th World Congress of the Academy of Human Reproduction

15–18 March 2017

Rome, Italy

TITLE

THE ENDOMETRIAL GLYCODELIN EXPRESSION IN THE PERITONEAL INFERTILITY

AUTHOR/S

Konkov D (UA) [1], Bulavenko O (UA) [2], Kotsyubska I (UA) [3]

ABSTRACT

CONTEXT: Glycodelin (Gd) is the major progesterone regulated lipocalin protein of the reproductive axis. Gd is a specific glycoform of one of the most abundant glycoproteins in the secretory and decidualized endometrium. expression of Gd in endometrial glands is likely to play a critical role in fertility. The temporal absence of Gd around the time of ovulation may permit fertilization; its appearance thereafter may facilitate implantation and pregnancy maintenance.

OBJECTIVE: To determine of influence peritoneal infertility on the endometrial Gd expression.

METHODS: Prospective, controlled study.

PATIENT(S): 50 peritoneal infertility patients and 20 natural-cycle control patients.

INTERVENTION(S): Gd samples in serum of the menstrual blood and serum progesterone concentrations.

MAIN OUTCOME MEASURE(S): Immunochemical scoring of endometrial Gd expression.

RESULTS: In the case of insufficiency of the luteal phase of the menstrual cycle observed progressive reduction in both indicators: endometrial Gd expression and serum progesterone levels in women with peritoneal infertility. The average Gd expression was statistically significantly lower in infertile women, against women from the comparison group (4026,5 ± 624,2 ng / ml vs. 34 648,2 ± 4774,6 ng / ml). Such statistically significant trend was observed in relation to the concentration of progesterone in the blood serum in the study groups (10,2 ± 2,8 nmol / L vs. 24,6 ± 3,1 nmol / l.

CONCLUSIONS: The endometrial Gd expression in menstrual blood depends on the level of progesterone. Lack of serum progesterone leads to endometrial glands dysfunction with a consequent reduction of Gd expression. The deficit of Gd expression in glandular epithelium of the endometrium could be one of the pathogenic mechanisms of implant failures in the assisted reproductive technology.

INSTITUTE

[1] National Pirogov Memorial Medical University, [2] National Pirogov Memorial Medical University, [3] National Pirogov Memorial Medical University