

17th World Congress of the Academy of Human Reproduction

15–18 March 2017
Rome, Italy

TITLE

ENDOMETRIAL RECEPTIVITY DEFECT IN ENDOMETRIOSIS WOMAN STUDY: INSULIN GROWTH FACTOR (IGF-1), MATRIX METALO PROTEIN-9 (MMP-9), AND LEPTIN EXPRESSION

AUTHOR/S

Budiastuti U R (ID) [1], Oepomo T D (ID) [2], Melinawati E (ID) [3], Heridho K (ID) [4], wijaya A (ID) [5], Alam F (ID) [6]

ABSTRACT

Context : Embryo implantation need harmonic processes where are Insulin Growth Factor (IGF-1), Matrix metalloprotein-9 (MMP-9), and Leptin that produce by endometrium are an interactive cascade of events between the embryo and the endometrium.

Objective: To determine endometrial receptivity defect in endometriosis woman that cause decreasing of embryo implantation succesfull rate.

Methods: Case-control study witch dependent variable is endometrial receptivity, and independent variables are IGF-1, MMP-9, Leptin.

Patient(s): Endometriosis patients and control were each 30 patients.

Intervention(s) : Endometrial biopsy followed by immunohistochemistry procedure

Main Outcome Measure(s) : Analyze IGF-1, MMP-9, Leptin expression in endometrium.

Result(s): There is significant differences of IGF-1, MMP-9, Leptin expression in endometriosis patient that higher than control subject with OR=25,33; CI=5,43-45,23; p=0,01 for IGF-1, OR=33,30; CI=15,20–51,39; p=0,01 for MMP-9; OR=30,33; CI=10,68-49,98; p=0,00 for Leptin. Linier Regression test of IGF-1, MMP-9 and Leptin expression that adjusting external variable (occupation, age, menstrual disorder, family history endometriosis, dating endometrial, dismenore, stage endometriosis, menstrual circle, obesity, contraception history) shows also higher expression in endometriosis patient with OR=0,125; CI =-54,36-54,31; p=0,99 for IGF-1, OR=51,24, CI=5,32-97,16; p= 0,03 for MMP-9 and statistically significant OR=33,75; CI=-18,01-85,51; p=0,19 for Leptin.

Conclusions : IGF-1, MMP-9 and Leptin expression in endometriosis patient are higher than normal patient and statistically significant. The higher expression of IGF-1, MMP-9 and Leptin in endometriosis patient cause endometrial receptivity defect and it will decrease embryo implantation.

INSTITUTE

[1] Faculty of Medicine Sebelas Maret University / Dr Moewardi General Hospital, Surakarta, [2] Faculty of Medicine Sebelas Maret University / Dr Moewardi General Hospital, Surakarta, [3] Faculty of Medicine Sebelas Maret University / Dr Moewardi General Hospital, Surakarta, [4] Faculty of Medicine Sebelas Maret University / Dr Moewardi General Hospital, Surakarta, [5] Faculty of Medicine Sebelas Maret University / Dr Moewardi General Hospital, Surakarta, [6] Faculty of Medicine Sebelas Maret University / Dr Moewardi General Hospital, Surakarta