

9th Yazd International Congress and Student Award on Reproductive Medicine with 4th Congress of Reproductive Genetics

Poster Presentations

P-6

Prevention of uterine fibrosis in rabbit model by intrauterine stem cell conditioned media injection immediately after endometrial curettage

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Background: Uterine fibrosis or Asherman's syndrome is a uterine acquired disorder with symptoms of implantation disturbances, menstrual irregularities and abortion.

Objective: The main goal of this study was evaluation of the effects of conditioned media of bone marrow-derived mesenchymal stromal/stem cells (BM-MSCs)

in prevention of uterine fibrosis immediately after uterine curettage in rabbit.

Materials and Methods: This study included 12 female rabbits (24 uterine horns in total) were randomly divided into four groups of intact negative control, curettage positive control, stem cell therapy, and stem cell conditioned media injection in the way that two corresponding uteri from a rabbit were assigned in different groups.

Results: The BM-MSC-conditioned media treated uterus showed regenerated endometrial layer compared with lower diameter of endometrium in the control group. It showed that BM-MSC-conditioned media play a positive role in the regeneration of the uterine wall. Area of fibrotic tissue in the treated groups was lower than the control groups.

Conclusion: Injected stem cell conditioned media had preventing effect on occurrence of uterine fibrosis. Therefore, BM-MSC-conditioned media can be suggested to be injected immediately after endometrial curettage.

Key words: Mesenchymal stromal/stem cell, Conditioned media, Uterine fibrosis.

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