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P233. Efficacy of transplantation of bone marrow stromal mesenchymal cells in the therapy of female genital tuberculosis in rabbits (experimental-morphological study)

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Context Genital tuberculosis in women of reproductive age leads to infertility due to the development of obstruction of the fallopian tubes. To activate the process of reparation altered organs, mesenchymal cells of bone marrow stroma (MSC) have been successfully used in recent years.
ObjectiveTo study the effectiveness of MSC in experimental tuberculosis of genitals in rabbits.
Methods experimental genital tuberculosis.
Patient(s) Sexually mature female rabbits (n = 21).
Intervention(s) All animals received intramuscularly 0.1% synestrol solution (every other day, No. 8, pre- and postoperative). During laparotomy a standardized culture of M. tuberculosis Erdman at a concentration of 107 CFU/0.2 m was injected under the mucosa of the ampullar part of the fallopian tube. Rabbits of the control group (n = 7), were infected only. 14 rabbits were treated with anti-tuberculosis drugs at average therapeutic doses, starting from the first month after infection. After two months of chemotherapy, allogeneic MSCs at a concentration of 5 million/ml, labeled with the lifetime dye of the IL-26 (Sigma-Aldrich, USA), were transplanted into the tube for the 7 rabbits.
Main Outcome Measure(s) Control of the infectious process was carried out in dynamics by Diaskintest, hysterosalpingography and laparoscopy, blood analysis. The animals were withdrawn from the experiment 5 months after infection, the peritoneal fluid was sampled (to determine the phagocytic activity of peritoneal macrophages, pMF) and the tissues of the fallopian tubes (for histological examination). In statistical processing, the t-criterion of the Student -Fisher was used.
Result(s) infected animals develop primary genital tuberculosis (without generalization) the vector of the inflammatory process changes direction towards repair with re-epithelialization of the tubes when antituberculous therapy combined with the introduction of MSC. Active participation in the reparative reaction of myofibroblasts was noted. This is evidenced by the phagocytic properties of pMF, which differ (in comparison with the control group, $p < 0.05$) by significantly greater activity in two of the four studied indices, namely, by absorbance and digestibility (respectively, 1.3 times and 1, 8 times).
Conclusions Antituberculous therapy in complex with MSCs in experimental tuberculosis of female genitalia leads to restraining early fibrosis and deformation of the ampullar portion of the tube and recuperation it's function.

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