THE HISTOPATHOLOGICAL EFFECTS OF SUPEROVULATORY DRUGS ON THE STROMA OF UTERINE ENDOMETRIAL TISSUE IN RAT

F. Rajaei1  P. Bazzi2

1Department of Anatomy, Faculty of medicine, Qazvin University of Medical Sciences, Qazvin, 2Department of Anatomy, Faculty of medicine, Bousher University of Medical Sciences, Bousher, Iran

Introduction: Using stimulatory drugs for harvesting more oocytes is very common during Assisted Reproductive Technique protocols. Studies have recently shown that the rate of successful implantation in stimulatory cycles is less than normal cycles due to detrimental effect of the superovulatory drugs on the endometrium. Since it has been shown that the endometrial basement membrane has a main role in implantation of the embryo, the possible effects of stimulatory drugs on the ultrastructures of endometrial basement membrane were investigated.

Methods: The endometrial samples were obtained from 30 normally cycling mouse and from 30 superovulated with PMSG (10 IU) and hCG(10 IU) at the time of implantation(120 h after hCG injection). The specimens were processed for electron microscopic studies. Qualitative and quantitative (Morphological and morphometric) studies were carried out on the micrographs. The data have been compared using statistical methods. Results: Morphological findings evaluated based on glycogen, vacuoles and nuclear euchromatin and morphometric findings have also shown that in case group, volume fraction of nucleus, RER, mitochondrium, glycogen to cell and euchromatin to nucleus had statistically no significant difference. Conclusions: These results( based on present study findings) suggest that ovulation drugs have no effects on stroma of endometrial tissues at the time of implantation.