عنوان مقاله:

Prostaglandin E Pathway in Uterine Tissue During Window of Preimplantation in Female Mice Mated with Intact and Seminal Vesicle–Excised Male

محل انتشار:

چهارمین کنگره بین‌المللی تولیدمثل (سال: 1397)

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خلاصه مقاله:

Prostaglandin E2 has been introduced as an important factor for embryo implantation. The present study was carried out to evaluate the seminal fluid effect on PGE2 pathway in uterus tissues of mice during window of preimplantation. The mRNA expressions of microsomal PGE synthase and cytosolic PGE synthase as well as protein expression of PGE receptor 2 and 4 were determined in uterine tissue of control and seminal vesicle excised (SVX)mated female mice during days 1 to 5 of pregnancy using qPCR and Western blotting, respectively. We found that mRNA expression of mPGES at day 1 and 2 of pregnancy was significantly higher in the control group than the SVX-mated group (P<.05), but such result was not obtained for cPGES expression. The protein levels of EP2 at day 1 to 4 of pregnancy were significantly higher in the control group compared with the SVX-mated group (P<.05), also the EP4 levels were significantly different between the control and SVX-mated groups at the first day of pregnancy (P<.05). Implantation rate was higher in the control group and also there were positive correlations between mPGES and EP2 expressions in the fifth day of pregnancy with implantation rate. Our results demonstrated significant effect of SF on uterine expressions of the evaluated factors, especially mPGES and EP2. Regarding the correlations between levels of these factors and implantation rate, we suggest that possibly one of the important mechanisms of SF in affecting female pregnancy is through mPGES and EP2

کلمات کلیدی:

Embryo Implantation, Prostaglandin E, Seminal Fluid, Uterus