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Substantial effect of fenugreek seeds aqueous extract on serum estradiol level in ovarian hyperstimulation syndrome rat model (Article) (Open Access)

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Abstract

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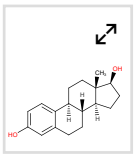
Objectives: Estradiol (E2) plays an important role in the pathophysiology of ovarian hyperstimulation syndrome (OHSS). This study aimed to evaluate the effect of fenugreek seed aqueous (FSA) extract on serum E2 levels in a rat model of OHSS. Methods: A total of 34 female Sprague Dawley rats, aged 18 days old, weighing 40 to 45 g, were randomly divided into negative control, positive control, and treatment groups. A daily dose of 1500 mg/kg per body weight of FSA extract was administrated orally to rats in the treatment group for 13 days. On day eight of the study, OHSS was induced in both positive control and treated groups by subcutaneous injection of pregnant mare's serum gonadotropin 50 IU for four consecutive days, followed by human chorionic gonadotropin 25 IU on the fifth day. The effect of FSA extract was evaluated by measuring the concentration of serum E2 using the enzyme-linked immunosorbent assay. Results: FSA extract reduced serum E2 level significantly in the treated OHSS model (p-value < 0.050) compared to the positive control group. Conclusions: The finding has important implications on the development of female infertility adjuvant drugs for safe assisted reproduction technology cycles in terms of OHSS prevention.

Chemistry database information

Substances



Author keywords

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