

عنوان مقاله:

Effects of Cefixime on the Testis Structure and Pituitary- Gonadal Hormones in Adult Balb/C Mice

محل انتشار:

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خلاصه مقاله:

Background and Objective: Cefixime is an antimicrobial agent which has a widespread ability against various pathogens, especially gram-negative organisms. Today, physicians apply cephalosporins especially cefixime in a wide scale. Regarding the side effects of some of these antibiotics on reproductive system, this study was conducted to determine the effect of cefixime on pituitary- gonadal hormones, gonadotrophins and testes morphology in adult male mice. **Materials and Methods:** Eighteen male mice (age: ۱۲-۱۶ weeks, weight: ۳۵۵ gr) were divided into three groups; control, sham and experimental (۶ mice in each group). Experimental group received cefixime (۰.۵ gr/kg/day) as a solution in dimethyl sulfoxide (DMSO) for ۱۰ days; the sham group received only drug solvent (DMSO) via IP injection and the control group remained intact. The animals were weighed and sacrificed. Level of hormones was measured by Radio Immuno Assay (RIA) method. Then, tissues were fixed in Buinchr('۳۹')s fixative. Sections were cut into ۵ μm thicknesses and stained with Hematoxylin and Eosin (H& E). Data were analyzed using T-test and SPSS software. **Results:** Count of spermatogenic, Sertoli and leydig cells and titer of FSH significantly decreased in the experimental group in comparison with the control and sham groups ($P<0.01$ and $P<0.05$). In the experimental group, DHEA hormone decreased significantly ($P<0.05$) in comparison with sham. No significant differences were seen in other factors between the groups. **Conclusion:** Regarding physiological role of Sertoli cells during spermatogenesis, reduction of FSH hormone may lead to negative effects on the sperm production and reproductive potential of male mice.

کلمات کلیدی:

Cefixime, Testosterone, Gonadotrophins, Testis, Mice

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