

عنوان مقاله:

N-Acetylcysteine Inhibits the Adverse Effect of Sodium Valproate Ontesticular Tissueand Spermatogenesisindexsin Mice

محل انتشار:

چهارمین کنگره بین المللی تولیدمثل (سال: 1397)

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خلاصه مقاله:

Purpose: Sodium Valproate (VPA) is used for treatment of epilepsyand cases disturb in the reproductive system through producing free radicals.N-acetylcysteine(NAC) is a potent antioxidant drug that reduces oxidative stress.The aim of this study was to investigate the effect of N-acetylcysteine on preventing adverse effects of sodium valproateon testis tissue and spermatogenesis indexesin mice.Methods:24 adult male NMRI micewith mean body weight 36-2gr were randomly divided into 4 groups (n = 6), Control, VPA(500 mg/kg/dayi.p), NAC (75 mg/kg/dayi.p) and VPA +NAC.At the end of 14 days treatment,the left testes were used for stereological evaluation and the right testes were used to measure daily sperm production(DSP). The results were analyzed using one-way ANOVA and Tukey's test, and means difference was considered significantly different at $p < 0.05$. Results: A significant reduction in the mean total volume of testis,volume of seminiferous tubules,and themean number of spermatocytes, round and long spermatids and Leydig cells,spermatogenesis indexes was found in the VPA group compared to the control group; while the interstitial volume increased significantlyIn the VPA group when compared to control ones.The above parameters were compensated inthe VPA+ NAC group to the control level. Conclusion:The results of this investigation showed that NAC could improve the VPA-induced toxicity by compensating theundesirable its effects on testis tissue .and spermatogenesis indexes

کلمات کلیدی:

Stereology, Sodium Valproate, NAcetylcysteine, Mice, Spermatogenesis Indexes

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