عنوان مقاله:

Effect of saffron on rat sperm chromatin integrity

محل انتشار:

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خلاصه مقاله:

Background: Currently, relation between reactive oxygen species (ROS) ROS concentration and semen quality was indicated. Saffron has traditionally been not only considered as a food additive but also as a medicinal herb, which has a good antioxidant properties.Objective: The aim of this study was to evaluate the protection potency of saffron and vitamin E on sperm chromatin integrity.Materials and Methods: Thirty adult male Wistar rats divided equally into saffron (100 mg/kg), vitamin E (100 mg/kg) and control (0.5cc distilled water /day) groups. After 60 days, cauda epididymis dissected and sperm cells were used for analysis of sperm chromatin packaging by chromomycin A3 (CMA3) staining, and sperm chromatin susceptibility to acid denaturation by acridine orange (AO) staining.Results: The mean percentage of CMA3 positive sperm was significantly decreased in saffron and vitamin E groups relative to control group ($p<0.001$). Moreover, the AO staining results showed that the mean percentage of sperm with DNA damage was significantly decreased in saffron and vitamin E groups as compared with control group ($p<0.001$).Conclusion: Our results purposed that saffron can protect sperm against DNA damage and chromatin anomalies

کلمات کلیدی:

Antioxidants, Saffron, Vitamin E, DNA damage, Sperm chromatin