

عنوان مقاله:

Phytoremedial effect of *Withania somnifera* against arsenic-induced testicular toxicity in Charles Foster rats

محل انتشار:

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خلاصه مقاله:

Objective: The main objective of the current study was to observe the ameliorative effect of *Withania somnifera* on arsenic-induced testicular toxicity by exploring the crucial parameters such as sperm counts, sperm motility, hormonal assay and lipid peroxidation including histopathology. Materials and Methods: In the present study, arsenic in the form of sodium arsenite was administered orally to male Charles Foster rats for 45 days. Thereafter, ethanolic root extract of *Withania somnifera* was administered for 30 days to observe its ameliorative effect on male reproductive system. Results: The study revealed that after administration of sodium arsenite, there was a decrease in the sperm counts and sperm motility accompanied by an increased incidence of sperm abnormalities and hormonal imbalance leading to infertility. However, after administration of *Withania somnifera*, there was significant reversal in the parameters denoting that it not only possesses antioxidant and rejuvenating property but also maintains the cellular integrity of testicular cells leading to normal functioning of it. Conclusion: The study concludes that *Withania somnifera* possesses phytoremedial effect. It is one of the best antidotes against arsenic-induced reproductive toxicity

کلمات کلیدی:

Sodium arsenite, *W.somnifera*, Rats, Testicular toxicity, Sperm Count, Testosterone

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