

## Protective Effect of Thymoquinone against Arsenic-Induced Testicular Toxicity in Rats

**Authors :** Amr A. Fouad, Waleed H. Albuali, Iyad Jresat

**Abstract :** The protective effect of thymoquinone (TQ) was investigated in rats exposed to testicular injury induced by sodium arsenite (10mg/kg/day, orally, for two days). TQ treatment (10mg/kg/day, intraperitoneal injection) was applied for five days, starting three day before arsenic administration. TQ significantly attenuated the arsenic-induced decreases of serum testosterone, and testicular reduced glutathione level, and significantly decreased the elevations of testicular malondialdehyde and nitric oxide levels resulted from arsenic administration. Also, TQ ameliorated the arsenic-induced testicular tissue injury observed by histopathological examination. In addition, TQ decreased the arsenic-induced expression of inducible nitric oxide synthase and caspase-3 in testicular tissue. It was concluded that TQ may represent a potential candidate to protect against arsenic-induced testicular injury.

**Keywords :** thymoquinone, arsenic, testes, rats

**Conference Title :** ICPPM 2014 : International Conference on Pharmacology and Pharmaceutical Medicine

**Conference Location :** Kuala Lumpur, Malaysia

**Conference Dates :** February 13-14, 2014