

# ANIMAL HEALTH & VETERINARY MEDICINE

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## Protective effects of *Hypericum perforatum* and *Nigella sativa* in experimental testicular torsion

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The purpose of the study was to evaluate the effects of *Hypericum perforatum* (HP) and *Nigella sativa* (NS) which are antioxidant and tissue protective with the biochemical and histopathological changes in experimental ischemia/reperfusion (I/R) damage in rat testis tissue. The research was carried out on 30 adult male Wistar albino rats. Rats were randomly separated in to 3 main groups, each group consisted of 10 animals. Control group (torsion but no topical agent) with HP and NS groups applied 25 mg/kg HP and NS intraperitoneally 30 minutes before torsion. In all the groups torsion was created by rotating only left testis at an angle of 720 degrees clockwise for 2 hours. Torsion was maintained by fixing the left testis in the scrotum with a 4-0 silk suture and then the incision was closed. Following 2 hours torsion the left testis detorsion and replaced in the scrotum for 4 hours. At the end of the experiment, the left testis removed for measurement of markers of oxidative stress and histopathological examination. In the HP and NS groups, malondialdehyd (MDA) concentration was significantly lower, activities of superoxide dismutase (SOD) and glutathione peroxidase (GPx) were significantly higher than control group. Both HP and NS have protective against I/R damage of the left testis, but the protective effects of NS was found to be higher than that of HP.

### Biography

Selvinaz Yakan is an expert in Veterinary Surgery. She has completed her PhD at Kafkas University, and currently working as Associate Professor at Agri Ibrahim Cecen University of Eleskirt Celal Oruc School of Animal Production, Animal Health Department, Ağrı, Turkey. She focuses on pain, veterinary ophthalmology, wound healing, veterinary anaesthesia and analgesia.

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