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Protective effect of *Thymus vulgaris* extract against gentamicin- induced nephrotoxicity in rats

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Abstract

Background: Gentamicin is an effective drug against infections but nephrotoxicity and oxidative impairment are side effects of this drug. Various plants were attempted to improve gentamicin nephrotoxicity. *Thymus vulgaris* have shown strong preventive and therapeutic effects against different diseases. We supposed that *Thymus vulgaris* prevents of gentamicin toxicity by its antioxidative effects.

Materials & Methods: Three groups of rats were used. In group1, salin was administered daily. In group 2, gentamicin was administered. In group3, gentamicin was administered plus *Thymus vulgaris*. Estimation of blood urea nitrogen, serum creatinine concentration and renal tissue MDA contents were carried out after the last dose of *Thymus vulgaris*. Kidneys were also studied for histological changes.

Results: Gentamicin induced significant ($p<0.05$) increases in BUN and serum creatinine concentrations and renal MDA contents when compared with the control group. BUN, creatinine and MDA levels were reduced significantly ($p<0.05$) in the *Thymus vulgaris* plus gentamicin group when compared with the gentamicin group. Histological studies kidney of intoxicated rats group which received *Thymus vulgaris* showed reparative tendencies.

Conclusion: In conclusion, *Thymus vulgaris* prevents the toxic effects of gentamicin in kidneys.

Keywords: Gentamicin, nephrotoxicity