

## Protective effect of quercetin against trinitrobenzene sulphonic acid induced colitis in rats; Possible morphological and biochemical alterations

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The present study was aimed to investigate the protective effects of quercetin against trinitrobenzene sulphonic acid (TNBS) induced colitis in rats. Colitis in rats was induced by intra rectal administration of TNBS (25 mg dissolved in 0.25 ml of 30% ethanol) using a catheter. The animals were divided into six experimental groups (n=6); Naive (Saline only without TNBS administration), control (saline + TNBS), Standard (sulphasalazine 25 mg/kg + TNBS), Q (50) (quercetin 50 mg/kg + TNBS), Q (50) (quercetin 50 mg/kg + TNBS), Q (100) (quercetin 100 mg/kg + TNBS). Sulphasalazine (25 mg/kg) and quercetin (25, 50 and 100 mg/kg) were administered *per oral* (*p.o.*) for 11 days. The colonic damage was evaluated in terms of macroscopical (body weight, stool consistency, rectal bleeding and ulcer index) and biochemical parameters (myeloperoxidase activity, lipid peroxidation, nitrite and glutathione). Treatment with quercetin (50, 100 mg/kg) for 10 days following TNBS administration significantly attenuated the clinical, morphological and biochemical alterations which were induced by TNBS, whereas this protective effect was not seen at lower dose (25 mg/kg) of quercetin.

### Biography

Dilip D is working as doctoral research fellow at University college of Pharmaceutical sciences, Kakatiya University, Warangal. He has completed his M. Pharmacy from Bharatividya University, Pune. He has published more than 5 research papers in reputed journals and national and international conferences.