

ROLE OF A SELECTIVE PHOSPHODIESTETASE INHIBITOR IN TREATMENT OF INFLAMMATORY BOWEL DISEASE

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Abstract

This study was done on five groups of rats will be used (NC group), TNBS- untreated colitis, and three groups TNBS-treated colitis rats. Treatments will be oral Sulfasalazine (SS, 500), Roflumilast given by oral route (OR group, 5 mg/kg) or Roflumilast given by rectal route (RR group, 5 mg/kg). Treatments will be given daily for 15 days starting 48 hours after induction of colitis. Serum was collected for measurements of TNF- α , IL-2, IL-12 and cortisol which were done used ELISA kits. Tissues were collected for antioxidant enzymes (GSH-MDA-MPO) and for histopathological and immunohistochemically observations. All treatments significantly improved these changes. Sulfasalazine exerted the greatest effect followed by oral Roflumilast, and then by rectal Roflumilast. The aim of the current study is to evaluate the Roflumilast as a selective phosphodiesterase inhibitor in the treatment of colitis in rats.

Key words: Roflumilast, phosphodiesterase inhibitor, CD, rats
