

present study as what is called a positive control ^(20, 21).

It was found that non-steroidal antiinflammatory drugs exacerbate experimental colitis in rats ⁽²²⁾. For that these agents were not used in this study.

Zinc sulfate is relatively safe and used orally as a drug, and it is available and relatively cheap, besides, it is known to have anti-inflammatory and antioxidant properties, which may be the starting point for an effective drug therapy in IBD.

The schedule of therapy (2 days before and 1 day after induction of colitis) was dependent in this study to evaluate mainly the possible prophylactic role of the tested agents in addition to their effectiveness in initial therapy for acute attacks of colitis, which is the major problem of the relapsing and remitting IBD.

In model 1 in this study, the insignificant difference in the means of weight of colonic segment of zinc sulfate, and prednisolone groups from that of the control group may be due to the severe form of inflammation and edema induced by the 5% Acetic acid-30% Ethanol in all groups.

There were no significant differences ($p > 0.05$) in model 2 in colon segment weight. Rachmilewitz, et al., ⁽²³⁾ showed that weight of colon segment involved by inflammation is increased and could be decreased by an inhibitor of nitric oxide synthase.

Regarding the mean gross histological score in model 1, its insignificant difference for all treatment groups from that for the control group, could be explained by severity of inflammation induced by acetic acid (5%) –ethanol (30%) that even could abolish the expected prednisolone effect (mean gross

score = 9.8 ± 0.16). In model 2, the obvious reductions in mean gross histological score for all treatment groups pointed to the effectiveness of the tested agents, (prednisolone and zinc sulfate), to reduce inflammatory process in acetic acid (2%) model.

Moreover, compared to effect of prednisolone on mean gross histological score, zinc sulfate (models 1 and 2) had comparable effect; this could indicate its possible potent initial anti-inflammatory effects.

In model 1, the insignificant differences induced by both tested agents in mean microscopical histological scores which simulated what was found in regard to mean gross score (see above) enforced the idea of unsuitability of acetic acid (5%) –ethanol (30%) model to evaluate the effectiveness of new tested agents in initial treatment of induced colitis in rabbits.

In model 2, prednisolone-induced and zinc sulfate-induced significant micro-scopical improvements emphasized the effective anti-inflammatory role of these agents particularly when these findings conjugated with their anti-inflammatory effects detected grossly (see above).

In model 2 in this study, compared to control group, prednisolone exerted a better apparent protective role than zinc sulfate regarding the induced reduction in mean body weight.

Although there was a significant reduction of mean body temperature of prednisolone group from the corresponding readings for the other groups, the means of body temperature were all within the normal range ($37.8^{\circ} - 39.4^{\circ} \text{C}$).

In model 1, the highly significant reduction in the mean