

Oxazolone Induced Colitis: A model of Inflammatory Bowel Disease

Oxazolone is a chemical allergen and a haptening agent. Oxazolone (4-ethoxymethylene-2-phenyl-2-oxazoline 5-one) induced colitis in mice constitutes a more satisfactory animal model of ulcerative colitis (UC) with a high degree of similarity of the histopathological characteristics and distribution of inflammation described in human, and used to screen potential therapeutic agents.

Induction Colitis

After seven days of acclimatization, mice are grouped according to their body weight and pre-sensitized with 3% (w/v) solution of Oxazolone (4-ethoxymethylene-2-phenyl-2-oxazoline-5-one) in 100% ethanol. Control group will be pre-sensitized with 100% ethanol contains no Oxazolone.

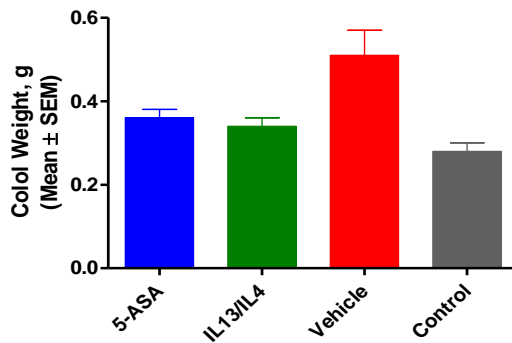
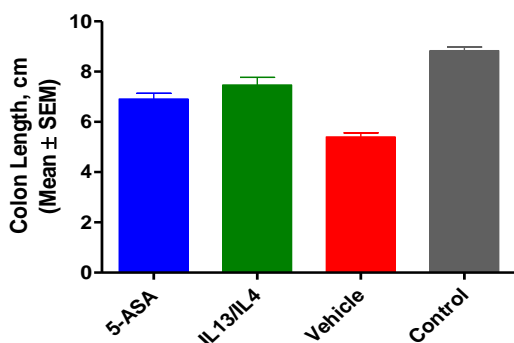
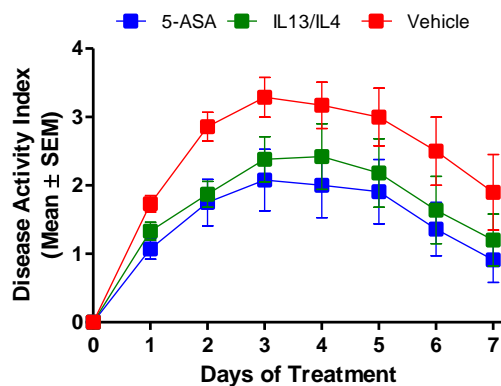
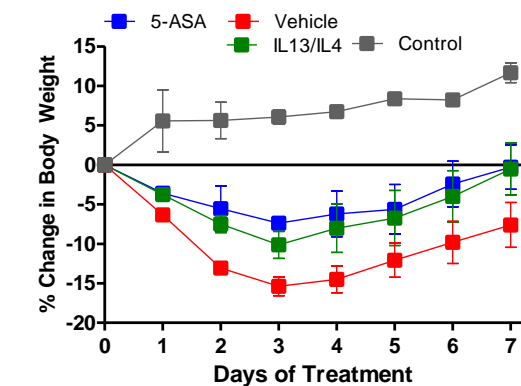
After five days of pre-sensitization, mice are challenged intra-rectally with 1% Oxazolone in 50% ethanol. Control group received 50% ethanol, without Oxazolone. This model can be used to evaluate therapeutic properties of new drugs and formulations, in a preventive as well as curative approach.

Observation:

- Body weight
- Clinical Score
- Stool consistency and hemocult positivity
- DIA (Disease Activity Index)
- Colon length & weight
- Histology

Report: Report includes detail procedure, appropriate analysis and raw data

Experiment: Species SJL/J female; n=15/group; Positive control: 5-ASA 100 mg/kg po; vehicle; water



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