Mitigating Efffects of Otilonium Bromide on Methotrexate-induced Hepatic-Damage in Rats

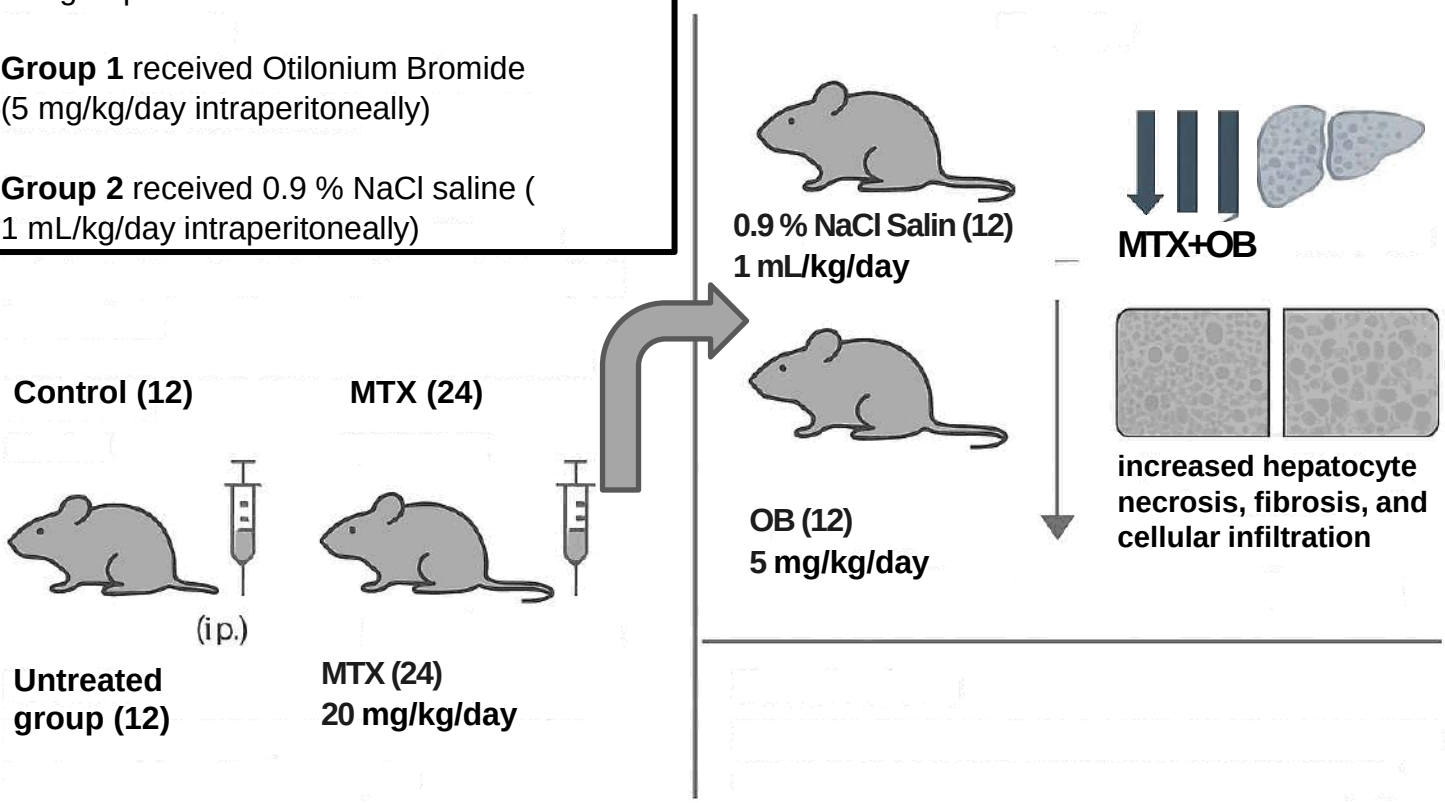
Background

This study aimed yo investigate potential protective effects of Otilonium Bromide on MTX-induced hepatotoxcicity in a rat model.

Methods

- ✓ Thirty-six adult female Wistar albino rats included in the study.
- ✓ Hepatotoxicity was induced in 24 rats via a single intraperitoneal dose of MTX (20 mg/kg)
- ✓ 12 rats served as the untreated control group

- ✓ The MTX-treated rats were further divided into two groups:
- ✓ **Group 1** received Otilonium Bromide (5 mg/kg/day intraperitoneally)
- ✓ **Group 2** received 0.9 % NaCl saline (1 mL/kg/day intraperitoneally)



Results

MTX administration resulted in significant structural and functional liver damage, as evidenced by elevated biochemical markers (ALT, TGF-β, NLRP3, PDGF, and MDA) and worsened histopathological scores, including increased hepatocyte necrosis, fibrosis, and cellular infiltration. Treatment with Otilonium Bromide significantly reduced these biochemical markers and improved histopathological changes compared to the MTX + saline group.

Conclusions

Otilonium Bromide demonstrated hepatoprotective eflects in rat moedel of MTX-induced liver injury