A Comparative Study Based on Evaluation of Safety and Efficacy of Paracetamol and Mefenamic Acid in Children with Fever.

ABSTRACT

Background: Fever is a common symptom in paediatric practice. Paracetamol and mefenamic acid are widely used antipyretics, but comparative data on their safety and efficacy in children are limited.

Objective: To compare the safety and efficacy of paracetamol and mefenamic acid in managing fever in children.

Materials and Methods: This prospective, randomized, comparative clinical study was conducted in the paediatric inpatient department of MGM Medical College and Hospital, Aurangabad. A total of 120 children aged 1–14 years with documented fever (temperature >99.5°F) were enrolled and randomly assigned to receive either oral paracetamol (10–15 mg/kg) or oral mefenamic acid (4–8 mg/kg) at recommended dosing intervals. Body temperature was recorded at baseline and at 1-, 4-, and 6-hours post-administration, and the cycle was repeated until normothermia was achieved. Adverse drug reactions were monitored throughout. Data were analysed using appropriate statistical tests, with $p < 0.05$ considered significant.

Results: Both drugs significantly reduced body temperature from baseline at all time points ($p < 0.05$). The mean time to achieve normothermia was slightly shorter in the mefenamic acid group, though the difference was not statistically significant. Adverse effects were mild and self-limiting, with gastrointestinal discomfort more frequent in the mefenamic acid group.

Conclusion: Paracetamol and mefenamic acid are both effective and well-tolerated antipyretics in children. Mefenamic acid may produce a marginally faster reduction in fever, but paracetamol remains preferable in children prone to gastrointestinal intolerance.

Keywords: Paracetamol; Mefenamic acid; Fever; Children; Antipyretic; Safety; Efficacy