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A STUDY OF COMPARISON OF EFFICACY OF TRAMADOL AND BUPRENORPHINE AS ADJUVANT TO INTRATHECAL HYPERBARIC BUPIVACAINE IN PATIENTS UNDERGOING INFRAUMBILICAL SURGERIES.		KEY WORDS:
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INTRODUCTION Spinal anesthesia is a preferred choice for infraumbilical surgeries due to its safety, cost-effectiveness, and effective sensory and motor blockade. Effective postoperative pain management remains challenging due to risks like respiratory depression. To address this, various adjuvants, including Tramadol and Buprenorphine, are explored for their ability to extend analgesia duration when used with Bupivacaine. Buprenorphine, a lipid-soluble opioid, is particularly noted for its prolonged analgesic effect without significantly affecting blood pressure or heart rate.		
Aims And Objectives 1. Primary Aim: Evaluate the onset and duration of sensory and motor blockade when Tramadol and Buprenorphine are used as adjuvants to intrathecal hyperbaric Bupivacaine. 2. Secondary Objective: Compare postoperative analgesic effects and the time to first rescue analgesia.		
METHODS This randomized, prospective double-blind study included 60 patients aged 35-45, categorized into two groups (30 patients each): <ul style="list-style-type: none">Group T: Received 2cc of 0.5% Bupivacaine with 30 mg Tramadol intrathecally.Group B: Received 2cc of 0.5% Bupivacaine with 50 µg Buprenorphine intrathecally. Patients were assessed for onset and duration of sensory and motor blockade, and pain levels were measured using the Visual Analog Scale (VAS) at intervals post-surgery. Any adverse effects, such as hypotension or nausea, were noted and treated as required.		
RESULTS <ul style="list-style-type: none">Sensory Blockade: Onset was quicker in Group B (2.98 minutes) compared to Group T (3.2 minutes).Motor Blockade: Similarly, Group B experienced an earlier onset (4.98 minutes) compared to Group T (5.28 minutes).Analgesia Duration: Group T had a longer time to first rescue analgesia (5.5 ± 5.1 hours) compared to Group B (4.86 ± 4.3 hours).VAS Scores: Scores were lower in Group T at 2, 6, 12, and 24 hours, indicating better pain control.Side Effects: No significant difference in side effects was observed between the two groups.		
CONCLUSION Both Tramadol and Buprenorphine enhance the duration of postoperative analgesia when used with intrathecal Bupivacaine. Tramadol demonstrates superior pain control, evidenced by lower VAS scores and reduced demand for rescue analgesics within the first 24 hours after surgery, suggesting its greater efficacy as an adjuvant for prolonged analgesia.		

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