

Comparison of Analgesic Efficacy of Paracetamol and Tramadol for Pain Relief in Active Labor

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Abstract : Introduction: Labour pain has been described as the most severe pain experienced by women in their lives. Pain management in labour is one of the most important challenges faced by the obstetrician. The opioids are the primary treatment for patients with moderate and severe pain but these drugs are not always tolerated and are associated with dose-dependent side effects. Nonsteroidal anti-inflammatory drugs, too, are associated with variable adverse effects. Considering these factors, our study compared the efficacy and side effect of intravenous tramadol and paracetamol. Objective: To evaluate the efficacy and adverse effects of an intravenous infusion of 1000 mg of paracetamol as compared with an intravenous injection of 50mg of tramadol for intrapartum analgesia. Methods: In a randomized prospective study at Pt. BDS PGIMS, 200 women in active labor were allocated to received either paracetamol (n=100) or tramadol (n=100). The primary outcome was the efficacy of the drug to supply adequate analgesia as measured by a change in the visual analog scale (VAS) pain intensity score at various times after drug administration. The secondary outcomes included the need for additional rescue analgesia and the presence of adverse maternal or fetal events. Results: The mean age of cases were 25.55 ± 3.849 years and 25.60 ± 3.655 years respectively As recorded by the VAS score, there was significant pain reduction at 30 minutes, and at 1 and 2 hours in both groups ($P < 0.01$). In comparison, between group I and II, a significantly higher rate of nausea and vomiting in tramadol group (14% vs 8%; $P < 0.03$) patients. Similarly, drowsiness (0% vs 11%; $P < 0.01$), dry mouth (0% vs 8%; $P < 0.04$) and dizziness (0% vs 9%; $P < 0.02$) was also significant in group II. Conclusion: Due to difficulty in administering epidural analgesia to all parturients, administration of paracetamol and tramadol infusion for analgesia is simple and less invasive alternative. In the present study, both paracetamol and tramadol were equally effective for labour analgesia but paracetamol has emerged as safe alternative as compared to tramadol due to a low incidence of side effects.

Keywords : paracetamol, tramadol, labor, analgesia

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