



Australian Association of Musculoskeletal Medicine

Intramuscular ketorolac versus osteopathic manipulative treatment in the management of acute neck pain in the emergency department: a randomized clinical trial.

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McReynolds TM, Sheridan BJ.

Ketorolac tromethamine injected intramuscularly (IM) has been shown to be an effective analgesic in treating patients with acute musculoskeletal pain in the emergency department (ED). The authors compare the efficacy of a single dose of IM ketorolac to osteopathic manipulative treatment (OMT) as delivered in the ED for the management of acute neck pain. A randomized clinical trial was conducted in three EDs. A convenience sample of 58 patients with acute neck pain of less than three weeks' duration were enrolled. Subjective measures of pain intensity on an 11-point numerical rating scale were gathered from patients immediately before treatment and one hour afterward. Subjects received either OMT or 30 mg, IM ketorolac. Subjects' perceived pain relief was also recorded at one hour after treatment on a subjective 5-point pain relief scale. Twenty-nine patients received IM ketorolac, and 29 patients received OMT. Although both groups showed a significant reduction in pain intensity, 1.7 ± 1.6 ($P < .001$ [95% CI, 1.1-2.3]) and 2.8 ± 1.7 ($P < .001$ [95% CI, 2.1-3.4]), respectively, patients receiving OMT reported a significantly greater decrease in pain intensity ($P = .02$ [95% CI, 0.2-1.9]). When comparing pain relief at one hour posttreatment, there was no significant difference between the OMT and ketorolac study groups ($P = .10$). The authors found that, at one hour posttreatment, OMT is as efficacious as IM ketorolac in providing pain relief and significantly better in reducing pain intensity. The authors conclude that OMT is a reasonable alternative to parenteral nonsteroidal anti-inflammatory medication for patients with acute neck pain in the ED setting.