

Inadequate pain relief for patients with trauma: A cause for concern?

Sir,

Pain relief is the major reason why patients come to a hospital.^[1] Trauma is a chief cause of pain and suffering.^[2] Road traffic accidents (RTA) are on the increase due to a variety of factors. Crush injuries and fractures of the limbs are a common outcome of RTA resulting in severe pain and morbidity. A large number of studies have shown that pain relief provided to patients in the accident and emergency (A and E) unit is grossly inadequate.^[3,4] The average time from arrival to the A and E unit, the choice and administration of an analgesic and the adequacy of pain relief provided to the patients is a subject of much debate.^[3]

This study was conducted in the A and E department of a tertiary care hospital to assess the adequacy of pain relief, in patients with RTA. We included patients with peripheral limb injuries reporting to A and E unit, with a Glasgow Coma Scale (GCS) of 15 from 01.01.2006 to 31.01.2011. Subjects with head injury, unconsciousness, and a pain score of less than 7 on a 10 point visual analog scale (VAS) were excluded. After obtaining the informed consent, patients were asked to rate their pain severity on the VAS. They were then allowed to follow the normal A and E protocol of the institute. The time to analgesic administration, the drug given, dose, and route of administration were noted. Half an hour after the analgesic administration the patient were again asked to rate their pain severity on the VAS. The total duration of time spent in the A and E was also noted. The study was approved by the Institute Review Board.

During the five year period, 560 patients were eligible to be included; out of which 76% were males. The median VAS on

first assessment at A and E department was 8 (7-10). The initial assessment of the patient by an intern was immediate, and analgesic administered within 10 minutes. The analgesic prescribed were intramuscular ketorolac 60 mg in 6.8%, intramuscular tramadol 100 mg in 22.72%, and intramuscular diclofenac 75 mg in 70.45% of the patients. The median VAS half an hour after the administration of ketorolac -6 (5.5-8.3), tramadol -6 (5.5-8.6), and diclofenac -7 (6.2-8.8).

There was no significant pain relief noted with any analgesic (Wilcoxon-signed rank test) including tramadol [Table 1]. We also found that most analgesics were administered intramuscularly. Although intravenous formulations are preferred in acute setting, we observe a clinical inertia among the A and E physicians. Various studies have highlighted the insufficient reassessment of pain intensity, delay in treatment, and underutilization of opioid analgesics in acute pain management.^[4,5] In our study, we also report a similar underutilization of opioid analgesics. The opioid phobia among A and E physicians should be eliminated. At centers where guidelines exist for pain management, there is better management of pain including reduced time to start treatment and increased opioid analgesic utilization.^[5]

Our observations support the need for increasing opioid analgesic usage and protocol-based management of pain in peripheral limb injuries and other less severe form of trauma.

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Table 1: Pain relief in patients met with road traffic accidents

Analgesic	% of patients receiving	VAS score [median (range)]
Ketorolac	6.81	6 (5.5-8.3)
Tramadol	22.72	6 (5.5-8.6)
Diclofenac	70.45	7 (6.2-8.8)

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