

Postoperative pain management by Acute Pain Service: A 10-Year Experience

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Background: Pain management after surgery is crucial to decrease perioperative morbidity and mortality. Even if pain is a frequent and predictable complication of the postoperative period, it still remains undertreated. Acute pain services (APS) are multidisciplinary teams that represent a modern strategy to address pain inside hospitals. The APS defines and applies pain treatment protocols specific for each surgery. We performed a large retrospective cohort study focusing on complications of epidural analgesia and IV opiates.

Methods: All patients followed by the APS of IRCCS San Raffaele Scientific Institute, Milan, Italy, from June 2006 to September 2016 were included in this study. Inclusion criteria were: receiving an epidural analgesia; receiving IV morphine by on-demand PCA systems; having perineural catheters (selected orthopedic patients only); and having inadequate pain control 7 days after surgery to plan a discharge therapy. Pain was assessed using the VAS at rest (VASr) and during movement (VASm) at each daily visit; the presence of side effects and complications was also assessed. Data of patients undergoing major gynecological, orthopedic, abdominal, ear-nose-throat, or spine surgery were recorded. Only data about PCA were collected in vascular, thoracic, and urologic surgeries.

Results: A total of 17,913 adult patients were followed by APS during the study period. Epidural analgesia was used in 7,776 cases (43%), while 9,239 (52%) patients used IV patient-controlled analgesia (PCA). A combination of the 2 was used in 87 patients (0.5%). A total of 456 perineural catheters (2.6%) were placed, while 442 patients (2.5%) used other analgesic techniques. We recorded 163 dural punctures during catheter placement, with no epidural hematoma, epidural abscess, or meningitis, and no permanent modification in sensitive or motor functions.

Conclusions: In our large case series, APS was confirmed safe and effective in treating postoperative pain, using both epidural analgesia and IV PCA with morphine.