

Journal Club Synopsis

August 2012

Discussion Leader: Paul Butts, MD (apparently also honorary DO)

Host: James Brown, MD

“Pain Management in the Emergency Department”

Clinical Scenario: A 34 year old female comes to the emergency department with a complaint of lower abdominal pain which started yesterday and has been gradually becoming worse. She rates it 8/10 in triage. She has no past medical history of which she is aware. Her vitals in triage were: T 99.4 BP 101/68 HR 101 RR 18 O2 97% on room air. She has been in the waiting room for the past two hours and has just been placed in a bed. On entering the room, she appears slightly uncomfortable but otherwise in no distress. She becomes very tearful in discussing her pain and continues to rate it as a 10/10. It started as a dull ache but it has been growing sharper in character. She has been nauseated intermittently but has not vomited, which she attributes to not having eaten anything today. Her physical exams are remarkable for borderline tachycardia and diffuse lower abdominal tenderness to moderate palpation, though there is no rebound or guarding. She would like "something for pain".

Introduction: Pain, in all areas of manifestation, is the most common complaint prompting visits to the emergency department. Despite its prevalence, there is a wide variety of clinical practice in regards to treating it and little in the way of good literature available to guide providers, particularly those with limited experience in patient care. Factors contributing to frustration include the lack of an accurate and reproducible way of measuring pain, patient, friend, and family member expectations as to what medications constitute appropriate pain management, problems with prescription drug addiction and abuse, and medical-legal concerns.

Article 1:

Todd KH, Ducharme J, Choiniere M, Crandall CS, Fosnocht DE, Homel P, Tanabe P; PEMI Study Group. **Pain in the emergency department: results of the pain and emergency medicine initiative (PEMI) multicenter study.** *J Pain.* 2007 Jun;8(6):460-6. Epub 2007 Feb 15.

This prospective, multicenter study assessed the current state of ED pain management practice. Patients aged 8 years and older with presenting pain intensity scores of 4 or greater on an 11-point numerical rating scale completed structured interviews. Eight hundred forty-two patients at 20 US and Canadian hospitals participated. On arrival, pain intensity was severe (median, 8/10). Pain assessments were noted in 83% of cases; however, reassessments were uncommon. Only 60% of patients received analgesics that were administered after lengthy delays (median, 90 minutes; range, 0 to 962 minutes), and 74% of patients were discharged in moderate to severe pain. Of patients not receiving analgesics, 42% desired them; however, only 31% of these patients voiced such requests. The study concluded that ED pain intensity is high, analgesics are underutilized, and delays to treatment are common.

Group Discussion: Discussion was mixed on this article, reflecting the subjective nature of pain management as well as the other obstacles listed above. Overall, the group felt that managing a patient's pain was important, but there was little consensus on what constituted appropriate management or if the study was very useful, considering its limitations, particularly the lack of patient reassessment after analgesia was administered and the lack of a treatment protocol in the study. Overall, the feeling seemed to be that this was the strongest article of the three considered.

Article 2:

Kelly AM. **Patient satisfaction with pain management does not correlate with initial or discharge VAS pain score, verbal pain rating at discharge, or change in VAS score in the Emergency Department.** *J Emerg Med.* 2000 Aug;19(2):113-6.

The aim of this Australian prospective observational study was to correlate patient satisfaction with pain management in the Emergency Department (ED) with initial and discharge visual analog scale (VAS) pain score, verbal pain rating at discharge, and change in VAS pain score between presentation and discharge. Fifty-four patients completed the study of whom 70% rated the management of their pain as 'good' or 'very good.' There was no correlation between patient satisfaction with pain management initial VAS pain score, discharge VAS pain score, verbal rating of pain at discharge, or change in VAS pain score between presentation and discharge. Therefore, information about the quality of analgesia provided in an ED cannot be inferred from patient satisfaction surveys.

Group Discussion: This study had a very small sample size and the group did not appear to be very impressed with it overall, except in that it indicated that in general surveys and the like are very poor ways to measure pain control, leading to quite a bit of confusion regarding how to adequately measure good analgesia. Additionally, although the study was performed in an urban ED, the urban in question was Australian, where pain management expectation and practice likely are very different than in our patient population.

Article 3:

Allione A, Melchio R, Martini G, Dutto L, Ricca M, Bernardi E, Pomero F, Menardo V, Tartaglino B. **Factors influencing desired and received analgesia in emergency department.** *Intern Emerg Med.* 2011 Feb;6(1):69-78. Epub 2010 Sep 29.

This Italian study looked at how often patients in pain desire and receive analgesics while in the ED by assessing desire of analgesics, administration of analgesics in the ED, correlation between initial analgesic administration and triage priority scores, and patients' satisfaction at discharge. 393 patients were enrolled with a median age of 62 years. 202 expressed desire for analgesics, but only 146 received it. Among patients refusing analgesics (48.6%), the most common reasons were to diagnose pain causes and pain tolerance. Pain score severity was a significant factor that predicted wanting analgesics, whereas desiring analgesics was a predictive factor to receive them. Patients with pain localized in the lower extremities or in the nose or were less likely to receive analgesia. Patients that desired and received analgesic treatment represented the group with a higher degree of satisfaction.

Group Discussion: This study was limited in that it utilized a small sample and was performed in Italy, where patient and provider expectations as to pain relief are clearly different than is common in the United States. The most common pain reliever utilized in the study was acetaminophen, which

does not seem to correlate well with U.S. practice. The same factors making pain management difficult listed in the introduction seemed to trouble this group as well when evaluating this article.

Overall: The general impression of all the articles seemed to be that they provided little, if any, useful guidance in measuring or treating pain complaints in the ED. The management of pain continues to be a highly individualized practice. There was considerable discussion as to formulating pain management strategies in addition to managing both the expectations of the patients (and their friends, families, lawyers, etc.), the responsibility of a physician to relieve suffering, the obligation to not harm the patient under care, and the reality that given the current environment of addiction and deaths from pain medication overdose there will undoubtedly be increasing scrutiny given to the prescribing of analgesia both in the ED and on discharge. The area remains open for new research, particularly since there is little evidence based literature to be cited in order to defend one's pain treatment practice.