

Findings of study comparing analgesics in acute post-trauma pain

February 9 2021

Acetaminophen, NSAID or both in post-trauma pain

Blinded RCT, pts >18y, acute (<24h) post-traumatic extremity pain, discharge pain score >3/10
 Excl: open fracture, poly/head/abdo/thoracic trauma, need for hospitalisation, regular analgesic use prev 2w, pregnancy, heart/liver/renal failure, swallowing disorder, inability to assess pain.

Acetaminophen 1g
 tid



57 (11.4%)

Piroxicam 20mg bid

n=492



87 (17.7%)

Combination

n=509



50 (9.8%)

Use of other oral analgesics



NS 35 (7%), NVS 62 (12%), MS 95 (19%), FS 123 (25%), VS 188 (37%)



NS 47 (10%), NVS 89 (18%), MS 80 (16%), FS 107 (22%), VS 169 (34%)



NS 32 (6%), NVS 63 (12%), MS 90 (18%), FS 127 (25%), VS 97 (39%)

Satisfaction at day 7*



10 epigastric pain, 1 vomit, 1 dizziness



57 epigastric pain, 1 vomit, 2 dizziness



31 epigastric pain, 1 vomit, 2 dizziness, 3 other

Adverse events

Msolli 2020 doi 10.1111/acem.14169

*NS: not satisfied, NVS: not very satisfied, MS: moderately satisfied, FS: fairly satisfied, VS: very satisfied



Blinded randomized controlled trial of patients >18 years, acute (3/10. Credit: Kirsty Challen, B.SC., MBCHB, MRES, PH.D., Lancashire Teaching Hospitals, United Kingdom

The combination of a high-dose NSAID with paracetamol does not increase the analgesic effect compared to paracetamol alone.

Researchers also found that paracetamol alone is superior to high-dose NSAID alone for posttraumatic extremity pain. These are the findings of a study titled Acetaminophen, or nonsteroidal anti-inflammatory drugs, or combination of both analgesics in acute post-trauma pain: a randomized controlled trial, to be published in the February 2021 issue of *Academic Emergency Medicine (AEM)*, a journal of the Society for Academic Emergency Medicine (SAEM).

According to the study, taking into account its superior efficacy and tolerability, paracetamol appears to be the most suitable first-line therapy for managing mild to moderate post-traumatic extremity pain after discharge from the [emergency department](#).

The lead author of the study is Mohamed Amine Msolli, MD, from the emergency department, Fattouma Bourguiba University Hospital, Monastir, Tunisia.

Commenting on the study is Andrew Chang, MD, MS, vice chair of research and academic affairs and professor of emergency medicine at Albany Medical Center in Albany, New York:

"This study of 1500 Tunisian adults, nearly 50% of whom had extremity fractures, provides evidence that paracetamol (acetaminophen) can be used as a first line analgesic, either alone or in combination with an NSAID, in the treatment of acute extremity injuries after emergency department (ED) discharge. Although this was not their primary hypothesis, the surprising efficacy of paracetamol over an NSAID, as shown by a 6.4% lower need for additional oral analgesics, may impact prescribing practices. For example, many ED patients who have a contraindication to NSAIDS but require analgesics upon ED discharge might be prescribed an opioid. Given the ongoing opioid epidemic, this

study lends evidence to support the use of acetaminophen alone in such patients."

More information: Mohamed Amine Msolli et al, Acetaminophen, Nonsteroidal Anti-inflammatory Drugs, or Combination of Both Analgesics in Acute Posttrauma Pain: A Randomized Controlled Trial, *Academic Emergency Medicine* (2020). [DOI: 10.1111/acem.14169](https://doi.org/10.1111/acem.14169)

Provided by Society for Academic Emergency Medicine

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