

ABSTRACT

Study of Analgesics on Grade III Open Fracture Patients (This study focused on inpatient orthopaedic cases in Universitas Airlangga Hospital)

Nayundra Rizki Vidia Giri

Fracture are classified into two types , they are closed fracture and open fracture. Open fracture can be classified to grade I, II and III based on its severity. Grade III open fracture have the highest severity which characterized by high-energy trauma, extensive soft-tissue damage, and substantial contamination. One of the clinical symptoms in fracture patients is pain which caused by the damage on periosteum. Therefore, analgesics are needed for pain management therapy. There are 2 types of analgesics, opioid and non opioid group. Opioid analgesics such as morphine and tramadol work through receptors in the CNS, whereas non-opioid analgesics such as acetaminophen and NSAIDs work in peripheral by inhibiting COX enzymes that inhibit prostaglandin synthesis as pain mediators. This study aimed to examine the use of analgesics in type III open fracture patients including type, dosage , route of administration and also DRP such as analgesic interactions with other drugs that may occurred. This research was conducted retrospectively and analyzed descriptively by time limited sampling method on grade III open fracture patient at Universitas Airlangga Hospital from 1st January 2014 to 31st December 2017. The results showed that there were 35 patients who had open type III fracture diagnosed with a ratio of 18 men and 17 women. The most widely used analgesics are ketorolac (3x30mg) IV, the second is metamizole (3x1g) IV and the third is tramadol (3x100mg) IV. Most patients received single analgesic in this study, but combination of two or three analgesics and switching analgesics also used in several patients to improve patient outcome. All types and regimens of analgesics were most given in duration of one until four days. There are six potential analgesics interactions with other drugs for patients with type III open fracture in this study.

Keywords : Analgesic, Grade III Open Fracture, In patient, Pain, Orthopaedic