FP11 COMPARISON OF ANALGESIA EFFECTIVENESS BETWEEN SINGLE DOSE OF IV KETOROLAC AND IM DICLOFENAC IN ACUTE MUSCULOSKELETAL INJURY PATIENT: A RANDOMISED CONTROLLED TRIAL

NA Nik Muhamad[1], MSN Ismail,[1] A Abu Bakar[1]

[1] *Department of Emergency Medicine, National University of Malaysia Medical Centre, Malaysia*

INTRODUCTION

Common non-steroidal anti-inflammatory drugs (NSAIDS) used in Emergency Department for musculoskeletal pain are Diclofenac sodium and Ketorolac. The purpose of this study is to compare the analgesia effectiveness between the two in acute musculoskeletal injury.

MATERIALS AND METHODS

The general objective of this study was to compare the reduction of pain score between the intramuscular (IM) Diclofenac and Intravascular (IV) Ketorolac in patient with acute musculoskeletal injury. The specific objective is to compare the effectiveness of pain score reduction in term of rate of pain reduction and to characterize adverse event within one hour of treatment. The study was an open label randomized control trial. The sample size of this is 27 patients with 14 patients received IM Diclofenac and 13 patient received IV Ketorolac. The study was conducted within 6 months. The pain score was using printed visual 11-point discrete rating scale (0-10) and patient asked to mark their pain score at 0 hour, 15 minutes,30 minutes, 45 minutes and 60 minutes. Any adverse event occurs within one hour of treatment will be documented and treated according to hospital protocol. During the study, all patients received standard treatment according to protocol.

RESULTS

The pain score at 0 hour, 15 minutes, 30 minutes, 45 minutes and 60 minutes for both drug was not statistically significant. The pain score reduction for Diclofenac is higher than Ketorolac at 0 hour but this is not statistically significant.

DISCUSSION

The total pain score reduction within 60 minutes is 4 for Diclofenac and 3 for Ketorolac but this also proved not statistically significant. Diclofenac and Ketorolac is equally effective for treatment of pain in mild acute musculoskeletal trauma patient. This can be correlated with previous studies where both drugs were equally effective