

ABSTRAK

PERBEDAAN JUMLAH TROMBOSIT DAN NILAI PT/APTT ANTARA TRAMADOL DENGAN KETOROLAC PADA PASIEN FRAKTUR FEMUR YANG DILAKUKAN TINDAKAN REDUKSI TERBUKA DAN FIKSASI DALAM

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Latar belakang: *Ketorolac* dan tramadol merupakan golongan obat analgetik yang umum digunakan untuk mengatasi nyeri paska operasi. Secara umum OAINS menghambat aktivitas enzim *cyclooxygenase* (COX) sehingga sintesis prostaglandin terhambat kemudian menghambat sintesis *tromboxan A2* sehingga akan mempengaruhi waktu perdarahan. Opioid termasuk tramadol juga diketahui memberikan efek perdarahan, walaupun mekanismenya belum jelas. Penggunaan analgetik terutama ketorolac pada operasi *orif* fraktur femur beresiko terjadinya komplikasi perdarahan. Belum ada penelitian tentang perbedaan jumlah trombosit dan kadar PT/APTT terhadap penggunaan kedua analgesik tersebut.

Tujuan: Mengetahui perbedaan trombosit dan PT/APTT antara tramadol dengan ketorolac pada pasien fraktur femur yang dilakukan *orif* di RSUP M. Djamil dan RS swasta di Padang.

Metode: Penelitian ini dilakukan dengan metode *double-blind randomized clinical trial* selama periode Agustus 2015-April 2016. Data yang dikumpulkan adalah data primer hasil pengukuran waktu perdarahan dan waktu pembekuan sebelum perlakuan dan sesudah perlakuan. Subjek penelitian adalah 38 pasien yang menjalani operasi *orif* femur yang memenuhi kriteria inklusi dan dibagi menjadi kelompok *Ketorolac* dan kelompok tramadol. Perbedaan jumlah trombosit dan pt/aptt pada kedua kelompok dianalisa menggunakan *wilcoxon rank dan mean witney*.

Hasil: tidak didapatkan perbedaan jumlah trombosit dan pt pada kedua kelompok, tetapi terdapat perbedaan kadar aptt antara sesudah operasi dengan sesudah pemberian analgetik pada kelompok *ketorolac*.

Kesimpulan: *Ketorolac* intravena menyebabkan perbedaan kadar aptt antara sesudah operasi dan sesudah pemberian analgetik

Kata kunci: *Ketorolac, tramadol, jumlah trombosit, kadar pt dan aptt*

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ABSTRACT

DIFFERENCE OF THROMBOCYTE COUNT AND VALUE of PT / APTT BETWEEN TRAMADOL AND KETOROLAC IN FEMORAL FRACTURE PATIENTS WHICH IS PERFORMED ORIF

Background: Ketorolac and tramadol is an analgesic drug classes commonly used to treat post-operative pain. In general, NSAIDs inhibit the enzyme activity cyclooxygenase (COX) thus inhibiting prostaglandin synthesis is inhibited then tromboxan A2 synthesis that will affect bleeding time. Opioids, including tramadol also known effect of bleeding, although the mechanism is unclear. The use of analgesic ketorolac mainly on the operation ORIF femur fractures at risk of bleeding complications. There has been no research on differences in the number of platelets and levels of PT / APTT against both the analgesic use.

Objective: To determine differences in platelet and PT / APTT between tramadol with ketorolac in patients who do ORIF femur fractures in M. Djamil General Hospital and private hospitals in Padang.

Methods: This study was conducted using a double-blind randomized clinical trial during the period August 2015 to April 2016. Data were collected primary data measurements bleeding time and clotting time before treatment and after treatment. Subjects were 38 patients who underwent ORIF femur that met the inclusion criteria and were divided into groups Ketorolac and tramadol groups. Differences in the number of platelets and PT / aPTT in both groups were analyzed using the Wilcoxon rank and mean witney.

Result: not found differences in the number of platelets and PT in both groups, but there is a difference between the aPTT levels after surgery with the group after the administration of analgesic ketorolac.

Conclusion: Intravenous Ketorolac cause differences between the aPTT levels after surgery and after analgesic

Keywords: Ketorolac, tramadol, platelet count, and PT/ aPTT levels

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