

## PERBANDINGAN KEJADIAN INFEKSI PADA PATAH TULANG KRURIS TERBUKA DERAJAT III A SETELAH PENCUCIAN LUKA MENGGUNAKAN CHLOROXYLENOL 0,24% DAN POVIDONE IODINE 3% DIPERIKSA DENGAN <sup>99m</sup>Tc-CIPROFLOXACIN SCAN DI RUMAH SAKIT HASAN SADIKIN BANDUNG



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### ABSTRACT

The goals of the treatment of open crural fractures are the prevention of infection, reduction and fixation of the fracture, and restoration of function. Wound irrigation is an important part in the management of the open fracture. There are controversies about optimal additive for irrigation. Povidone iodine have been widely use as an antiseptic in surgery and wound cleansing agent but it has side effects include delayed wound healing, skin allergy and thyrotoxicosis reaction. Chloroxylenol is an antiseptic that capable to eliminate various microbes, including bacteria, mould, and methicillin Resistant Staphylococcus aureus (MRSA) within 15 seconds. <sup>99m</sup>Tc-Ciprofloxacin is a ciprofloxacin that bind to <sup>99m</sup>Tc. <sup>99m</sup>Tc-Ciprofloxacin have 85% sensitivity, 92% specificity, and 88% accuracy in detecting infection in orthopedics cases which seen as an increased of radioactivity uptake (hotspot).

The aim of this clinical study was to compare the efficacy of chloroxylenol 0.24% with povidone iodine 3% in minimizing infection in wound irrigation of open crural fracture grade IIIA. <sup>99m</sup>Tc-Ciprofloxacin scan was done on the 7<sup>th</sup> day after irrigation. Analysis study conducted to analyze the role of sex, age, type of fixation, interval between trauma and hospital admission, interval between hospital admission and surgical debridement, and interval between trauma and surgical debridement in decreasing infection.

There are 30 patients with open crural fracture grade IIIA included in this study from March to August 2009 consist of 25 male and 5 female. Patient were randomized grouped into two. Group I received irrigation with NaCl-Povidone iodine 3% and group II received NaCl-Chloroxylenol 0.24%. On the group I, 40% patient has hotspot on the <sup>99m</sup>Tc-Ciprofloxacin scan and 26.7% on group II. Statistical analysis showed that there is no significant differences between two group ( $p > 0,05$ ).

In conclusion, there was no statistically significant differences between chloroxylenol 0.24% and povidone iodine 3% in decreasing infection potential following wound irrigation of open crural fracture grade IIIA based on <sup>99m</sup>Tc-Ciprofloxacin scan at Hasan Sadikin Hospital Bandung.

**Keywords:** Open crural fracture grade IIIA, chloroxylenol, povidone iodine, <sup>99m</sup>Tc-Ciprofloxacin scan.

### PENDAHULUAN

Trauma merupakan salah satu masalah utama dalam bidang kesehatan dan faktor yang sangat berperan dalam penyebab kematian. Di beberapa negara penanganan trauma masih buruk dan langkah-langkah untuk perbaikan

masih dalam tahap awal. Di Amerika Serikat sekitar 12.400 orang meninggal setiap bulan karena trauma dengan rata-rata usia 29 sampai 34 tahun dan 60% sampai 80% terjadi pada laki-laki sehingga beban sosial dan tingkat kecacatan pada usia produktif sangat besar.<sup>1</sup>