

## **C-Reactive Protein as Early Detection of Infections in Closed Fracture Post or if in Haji Adam Malik General Hospital**

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**Abstract : Objective:** The purpose of this study was to find out the difference in CRP levels between patients with infection and patients without infection post-operative closed fracture before the clinical signs of infection arise. **Material and Methods :** Eighteen patients were diagnosed with closed fracture had underwent an ORIF, nine patients had shown a signs of infection and 9 other patients had no signs of infection. Both of the group subject had a C-Reactive protein examination conducted on the 2<sup>nd</sup> and 4<sup>th</sup> day post-operative. The study was done in the period March 2018 to July 2018. The study was conducted with a cross-sectional approach, to analyze differences in C-Reactive Protein values. **Results:** Subjects who performed closed fracture surgery was 18 subjects, 4 (22.2%) female subjects, 14 (77.8%) male subjects. With the location of the fracture of the humerus as much as 1 (5.6%) subjects, radius 2 (11.1%) subjects, femur 3 (16.7%) subjects, tibia 10 (55.6%) subjects, fibula 2 (11.1%) subjects. From the results of the data collected, CRP 2 days after surgery  $1.93 \pm 0.83$ , CRP 4 days after surgery  $1.74 \pm 1.1$ . **Conclusion:** From the results of the statistical analysis of the comparison of CRP levels in patients with infection and patients without infection post-operative closed fracture there were significant differences, this was indicated by the p value of 0.001 ( $p < 0.05$ ). CRP levels after debridement on day 2 and 4 remain or increased in patients with infection.

**Keywords :** C-Reactive Protein, Closed Fracture, Infection.

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