

The Efficacy Of Collatamp® In Prevention Of Infection Following Open Fracture Of Femur

Subramaniam K¹; Che-Ahmad A¹; Abdul Rauf²

¹ Department of Orthopaedics, Traumatology and Rehab, International Islamic University Malaysia, Pahang

² Department Of Orthopaedics, Hospital Tuanku Ja'afar, Negeri Sembilan

PURPOSE:

To evaluate the incidence of infection in open fractures grade 3A of the femur, following the application of Collatamp® during the definitive fixation.

METHODS:

A total of 36 patients sustaining open fractures Grade 3A of the femur, were included in this study. They all underwent initial debridement and subsequently underwent internal fixation of the fracture with Collatamp® application and reviewed at 2 weeks intervals.

RESULTS:

Overall ESR and TWC in both male and female were reducing, with P values <0.001. The data analysis shows that there was no infection in 97.2% of patients. There was only 1 patient (2.8%) who had developed infection.

ESR(mm/hr) Values (mean, SD)				
	Baseline	Week 2-6	After Week 6	P value
Overall	64.44 (29.08)	41.05(19.73)	20.64 (15.70)	<0.001

Table 1: Erythrocyte Sedimentation Rate (ESR), pre-operatively, and during follow up visits.

TWC's (x10 ⁹ /L) Values (mean, SD)				
	Baseline	Week 2-6	After Week 6	P value
Overall	14.1 (3.21)	10.1 (3.02)	8.17 (3.15)	<0.001

Table 2: Total White Counts (TWC'S), pre-operatively, and during follow up visits.

N (%)	
SSI Infection Status	
Yes	1 (2.8)
No	35(97.2)
Union of Limb	
Yes	35(97.2)
No	1 (2.8)

Table 3: Percentage of surgical site infection and union.

DISCUSSIONS:

Ostermann et al observed a decreased infection rates in open fracture from 12% to 3.7%, augmented with local antibiotics beads. Clifford et al described deep seated infection in open fractures grade 3 were up to 44.4%. Chaudhary et al found local wound complications were 9.67% and deep-seated infection was 6.45% following application of antibiotics impregnated fleeces/sponge.

CONCLUSION:

The use of Collatamp® has a significant impact in reducing the incidence of infection following an open fracture.

REFERENCES:

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3. Neubauer, T., (2006). Open fractures and infection. *Acta Chirurgiae Orthopaedicae et Traumatologiae Cechoslovaca*, 73(5), 301–312.