

Implant Failure In Orthopaedic Surgery – A Retrospective Study

¹Ramesh M, ¹Santiya A, ²Kesavan K, ¹Israr WM, ¹Theruna U, ¹Ikhwan S, ¹Suhana J, ¹Thamilvani M, ¹Melissa MN

¹Department of Orthopaedic Surgery, Hospital Tuanku Ampuan Najihah, Kuala Pilah, 70200, Negeri Sembilan, Malaysia.

²Department of Orthopaedic Surgery, Hospital Tuanku Jaafar, Seremban, 70300, Negeri Sembilan, Malaysia

INTRODUCTION:

The main objective of our study is to determine the causes of implants failure which are being used in our department for fractures fixation.

MATERIALS & METHODS:

The study was conducted from January 2014 to January 2017. Four hundred and thirty patients had implant fixation in which 442 fractured long bones using various orthopaedic implants. Twenty eight implants were retrospectively identified for implant failure. Broken implant or fatigue failure, loosening, bending and infection were taken as evidence of implants failure. Details about the previous injury and subsequent injury over the same limb, definitive management, place and date of surgery, type of implant used and post operative management were obtained from patients' case notes and old records.

RESULTS:

There were 342 males and 88 females with maximum implant failure occurred in 30-40 years of age. This study recorded implants failure occurred more often with dynamic compression plate (DCP) especially in femur plating with medial comminution. Lower limb long bone implants failure 25 (89.2%) were more common compared to upper limb long bones 3 (10.7%). Implant failures seen mainly from breakage of the internal fixation device 14 (50%). Patient non compliance with post operative instructions like early weight bearing and new trauma over previously operated site were the main causes for implants failure in our study.

CONCLUSION:

This study shows that the most important factor which leads to implant failure was the fatigue factor due to repeated trauma during consolidation phase of fracture healing.



Figure 1.
Broken Femur DCP

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