

A Balance Between Art And Principle In Managing Complex Femur Fracture

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INTRODUCTION:

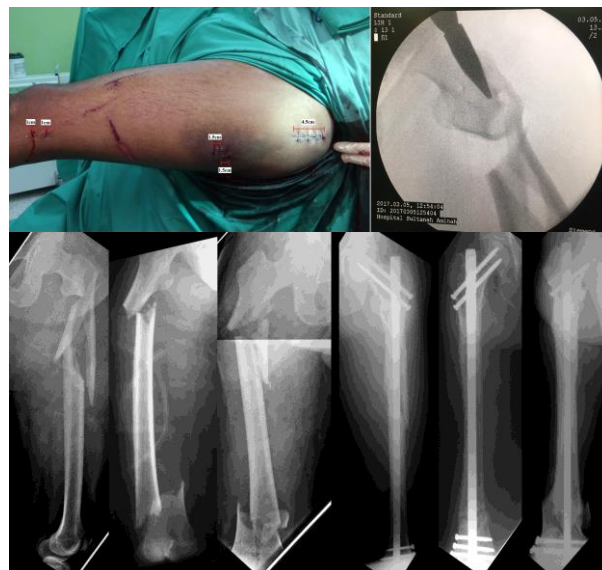
Complex fractures of proximal and distal femur often difficult to treat. Plating of segmental femoral shaft fractures is also an option, particularly when associated with peritrochanteric fractures, but commonly associated with complications. Although technically difficult, intramedullary nailing has been recommended by several studies and has demonstrated good results. The purpose of this review is to analyses our results of complex femoral fractures, treated with interlocking nail.

MATERIALS AND METHODS:

Between January 2016 and January 2017, 21 patients with complex femoral fracture were treated with interlocking nail in Hospital Sultanah Aminah Johor Bahru, Malaysia.

RESULTS:

RESULTS:	VALUE:
SUBTROCHANTERIC-DIAPHYSEAL INTERCALARY SEGMENT	11
DIAPHYSEAL-SUPRACONDYLAR INTERCALARY SEGMENT	9
TOTAL CASES	21
MALE/FEMALE	16/5
HIGH EENRGY TRAUMA	18
CLOSE/ OPEN FRACTURE	18/3
AVERAGE AGE	37
ASSOCIATED INJURY	47%
AVERAGE WAITING TIME	56 HOURS
AVERAGE OPERATING TIME	95MIN
AVERAGE FRACTURE UNION	28 WEEKS
AVERAGE BLOOD LOST	179ML
CLOSED / OPEN REDUCTION	90%/10%
AVERAGE FOLLOW-UP	15 MONTHS
COMPLICATIONS	
NON UNION	14%
DELAY UNION	5%
MALUNION	29%
KNEE STIFFNESS	10%
SHORTENING	33%
ARDS POST OPERATION	5%
AVERAGE ROM	
KNEE	125°
HIP	110°



DISCUSSION:

Due to high rate of complications, most traumatologists have advocated intramedullary nailing for complex femoral fractures. Certain intraoperative techniques are essential, the starting hole is crucial, and care must be taken to ensure it is within piriformis fossa or greater trochanter. Reduction devices commonly are required to obtain and maintain reductions.

Wiss et al¹ recorded that shortening between 1.0 to 1.5cm occurred. When comminution exists at either fracture level, shortening cannot be prevented. Our review, we noted shortening between 1.5 to 2.0cm, but was non-symptomatic for the patients.

Our malunion rate of 32%, where 11 degrees of angulation developed at the distal fracture site. Three degrees of varus angulation were noted in 3 patients and 5 degrees of genurecurvatum. Although minor malunion were recorded, all were asymptomatic for the patients Wu et al².

Nonunion in 4 patients (3 aseptic and 1 septic), 3 patient had exchange nail done and the fracture heal uneventfully. Another 1 case for septic nonunion removal of nail and antibiotic coted nail was done.

REFERENCES:

1. Wiss, D.A. Brien, W.W., Stetson, W.B. Interlocked nailing for treatment of