

Functional Outcome Of Distal Femur Fractures In Hospital Tengku Ampuan Afzan, Kuantan, Pahang

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INTRODUCTION:

Distal femoral fractures are relatively uncommon, account for <1% of all fractures and about 7% of all femoral fractures. Distal femoral fractures were limited to those fractures with extension into or distal to the metaphyseal flare of the femur.

MATERIALS & METHODS:

105 cases of distal femur fracture were treated surgically in Hospital Tengku Ampuan Afzan from January 2010 to December 2013. 61 out of 105 patients (58%) were followed-up with minimum period of 6 months and evaluated for the functional (Lysholm score), quality of life (SF36) and radiological (Rasmussen anatomical radiological score) outcomes by a series of questionnaire and measurement.

RESULTS:

There were 49 males and 12 females with ratio being 4:1 (male: female). Average age was 39.5 years (OTA type 33-A), 31.9 years (OTA type 33-B) and 36.8 years (OTA type 33-C). Out of 61 patients, 32.8% were OTA type 33-A, 24.6% were OTA type 33-B and 42.6% were OTA type 33-C. Multiple implants were used which were locking compression plate (61%), screw fixation (23%), buttress locking compression plate (5%), buttress plate (7%), external fixator (2%), hybrid external fixator (2%) and supracondylar nail (2%). The cases were performed by the surgeon (79%) and by medical officer (21%). Lateral incision was commonly made in all types of fractures. There were 2 out of 20 cases of type 33-A distal femur fracture developed complications includes non-union and shortening. Meanwhile, 3 out of 15 cases of type 33-B fractures developed non-union and osteoarthritis. Otherwise, there were 4 out of 26 cases of type 33-C fractures had complications of shortening, surgical site infection and malunion. There were significant association between anatomical radiological outcomes and distal femur fracture.

Anatomical score was excellent in 16 patients out of 61 patients with distal femur fractures with type 33-A fracture (N = 8, 50%), type 33-B (N = 4, 25%) and type 33-C fracture (N = 4, 25%). Good anatomical score was 11 in distal femur fracture type 33-A (25%), 11 in type 33-B fracture (25%) and 22 in type 33-C fracture (50%). Unacceptable anatomical radiological score was 1 case in distal femur fracture type 33-A. There was no significant association between Lysholm score with type of distal femur fracture. Distal femur fractures type 33-C score good to excellent higher than type 33-A and type 33-B fractures. There were no statistically significant differences between all sub-types of distal femur fractures in term of quality of life (QOL) SF 36 functional outcomes. The distal femur type 33-B had higher score compare to type 33-A and type 33-C fractures namely physical function, role physical, vitality, mental health and physical health.

CONCLUSION:

The functional outcome was affected by type of implant that being used (locking compression plate predominate), surgeon, type of incision, duration of admission, duration of surgery and duration from trauma to definitive treatment. Distal femur fracture type 33-B treated operatively had better functional outcome (Lysholm and Tegner), quality of life (SF-36) and Rasmussen radiological score compare to type 33-A and type 33-C.

REFERENCES:

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