

TIME HEALS: A CASE OF DELAYED MALUNION OF SUBTROCHANTERIC FEMUR

Muhd Husyaini Hasni¹, Yohan Khirusman Adnan¹

¹Pusat Perubatan University Malaya

Introduction: Delayed and non-union of subtrochanteric femur is often associated with atypical femur fracture due to prolonged bisphosphonate use and malalignment of subtrochanteric fracture post-fixation.

Discussion: This is a case of an 85-year-old lady with multiple co-morbidities including osteoporosis, bronchial asthma and rheumatoid arthritis. She was on bisphosphate for 3 years prior to this event. She presented with closed intertrochanteric fracture left femur while walking. There was no trauma, infection or malignancy. Her fracture was stabilized in a timely manner with long PFN and weight-bearing was delayed. She was started with denosumab at 4 months post-operative, she refused revision surgery. She finally has achieved union after 3 years.

Conclusion: Subtrochanteric fracture fixation using an intramedullary nail is known to be challenging. Malreduction can occur in the sagittal and coronal plane. Often deformity is in varus and this instability may lead to delayed or non-union. Available treatment options of subtrochanteric non-union are dynamization, augmentation, bone grafting, exchange nailing, plating or prosthetic replacement. The key towards achieving union is good reduction alignment with stable fixation. FREEDOM trial shows that the use of denosumab does not interfere with fracture healing. In the treatment of subtrochanteric delayed or non-union, there are limited suggested management option other than surgical intervention. The use of denosumab in the medically unfit patient for revision can be considered in the cases of delayed union. Further research is needed to support management in this area.