

## Modified Use Of Proximal Humeral Implant For An Advanced Age Patient With Neglected Developmental Dysplasia Of Hip (DDH)

<sup>1</sup>Ooi CW, <sup>2</sup>Tan HP

<sup>1,2</sup>Department Orthopedics, Hospital Sibul, Sarawak.

### INTRODUCTION:

Proximal femoral fractures are leading case of hospitalization in Malaysia among those elderly with osteoporosis. These incidences will continue to grow as the population ages. Complication can be devastating and catastrophic to patient due to prolonged immobilization which includes high mortality rate.<sup>1</sup>

### CASE REPORT:

This is a 77 year-old lady, presented with right hip pain and unable to ambulate for three days duration. She denied any history of recent trauma. But further history noticed she was ambulating with short limb gait since childhood. Beside right hip tenderness with minimal swelling, her right lower limb appeared shortened, abducted and external rotated.

Radiograph (Figure 1) showed reverse oblique fracture over subtrochanteric region of right femur with generalize osteoporosis. The right hip joint appeared dysplastic as evidenced by absence of right acetabulum and femoral head with proximal migration of femur.



Figure 1 - Pre-operative radiograph.

In view of the dysplastic proximal femur due to underlying DDH, a proximal humeral implant was used for her fracture fixation (Figure 2). A satisfactory recovery was noted during subsequent follow-up in which she is able to weight bear partially with walking aid.

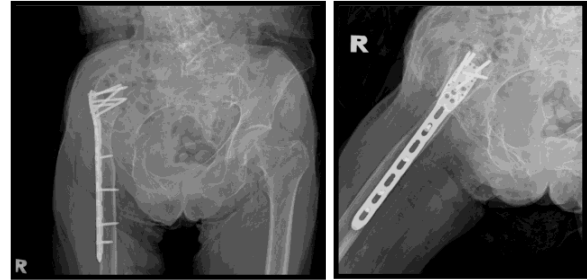


Figure 2 - Post-operative radiograph.

### DISCUSSION:

An alternative implant is needed for this patient because of anatomically dysplastic femur. The proximal humeral implant was originally designed for the proximal humerus, but its flexibility and shape with small foot-print allow for application in other bones. This modified usage has also been reported in post-polio and pediatric aged group with proximal femoral fractures.<sup>2</sup>

### CONCLUSION:

The proximal humeral implant can be used for fixation in proximal femur fracture, in which the proximal multi-directional locking screws provide stability in the both coronal and sagittal planes.

### REFERENCES:

1. Mittal R, Banerjee S. Proximal femoral fractures: Principles of management and review of literature. *J Clin Orthop Trauma*. 2012 Jun;3(1):15-23
2. Jusoh, Mohd. (2017). Adult PHILOS Humeral Plate for the Fixation of Paediatric Proximal Femur Fracture