

## Non Vascularized Fibula Strut Graft Augmentation For Fixation Of Proximal Humerus Fracture Using PHILOS Plate

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### INTRODUCTION:

Proximal humerus fracture accounts about 4 to 5 % of all fractures. We report a case of non vascularised fibula strut graft augmentation for fixation of proximal humerus fracture using PHILOS Plate.

### REPORT:

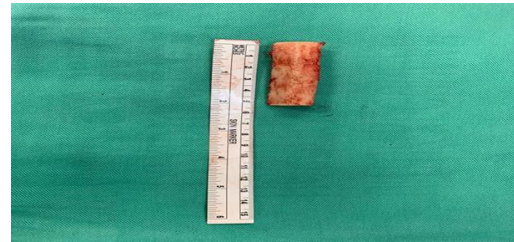
A 49 years old male had a history of accident with trauma to the right shoulder. Radiography of the right shoulder revealed a displaced comminuted fracture of the right proximal humerus involving the surgical neck, greater and lesser tuberosities. CT scan also showed comminuted fracture involving the humeral head, surgical neck, greater and lesser tuberosities. Patient was planned for augmentation of non vascularised fibular strut graft with Proximal Humerus Internal Locking System (PHILOS) plating.



**Figure 1 :**

CT scan images of the severely comminuted fracture of the proximal humerus

5 cm of non vascularised fibular strut graft was harvested from the ipsilateral side and 10 cm of distal fibula preserved to prevent the ankle instability. The graft was contoured and telescoped in the shaft. A 3.5 proximal humerus locking plate with 4 holes was then used, the humeral head was attached to the subscapularis and sutured to the plate using 5-0 ethibond. The remaining rotator cuff tendons was also sutured to the plate.



**Figure 2**

5 cm of non vascularised fibular strut graft was harvested from the ipsilateral side



**Figure 3**

Post operative xray shows fracture well reduced, fibular bone graft is well placed.

### CONCLUSION:

The use of a fibular strut will lead to improved construct stiffness, decreased chance of humeral head screw penetration, and thus improved clinical outcomes.

### REFERENCES:

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