Fracture Fixation with 3.5mm Non-locking Buttress Plate for Bilateral Proximal Humerus Fracture

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INTRODUCTION:

Proximal humerus fractures are common injuries. However bilateral proximal humerus fracture is rare. Matthias et al stated 17 cases of bilateral proximal humerus fractures from year 2005-2016. There is also a debatable issue of the type of implant best used in proximal humerus fracture. There are several options including anatomical locking plate, K-wire, and non-locking 3.5mm buttress plate.

REPORT:

Mrs. A, a 36-years old housewife, alleged motor vehicle accident. She was thrown from her motorcycle and was hit by a car from behind. There was no loss consciousness but sustained retrograde amnesia immediately post injury. She complained of bilateral shoulder pain and no other injuries were noted. On examination, both shoulder were tender. Her bilateral shoulder radiographs showed bilateral proximal humerus fractures classified as a three-part fracture, according to Neer classification bilaterally. Surgical intervention was decided in view of bilateral fractures for early rehabilitation. Patient was not able to afford for locking plate thus we decided to use non locking 3.5mm buttress plate to fix the fractures as this implant could be contoured to achieve bone alignment and buttressing the fracture fragment. She bilateral underwent fractures plating simultaneously on same setting, deltopectoral approach were made and the fractures were reduced on direct vision. Intraoperatively, compression of greater tuberosity is achieved with partial threaded 4.0mm cannulated screw and neutralization of fracture fragments using 3.5mm buttress plate bilaterally. Post-operation, patient was immobilized with bilateral arm sling for 3 weeks. During follow-up three month post operatively, radiograph showed that the fractures had united and she was allowed to return to daily routine activity. She returned to

her normal daily activity three months postoperation.



Figure 1: Radiograph of pre and post-operation of bilateral shoulder.



Figure 2: Frature fixation with 3.5mm non-locking buttress plate.

CONCLUSION:

Non-locking 3.5mm buttress plate is not obsolete and one of the implant option for operative management of proximal humerus fracture.

REFERENCES:

1. A. Jaiswal, N. S. P. Singh, "Bilateral traumatic proximal humerus fractures managed by open reduction and internal fixation with locked plates," *Chinese Journal of Traumatology*, vol. 16, no. 6