



CASE STUDY SHOULDER

Open Reduction and Internal Fixation for Non-Union of the Proximal Humerus

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History

A 75 year old female presented for treatment of left shoulder pain. X-rays revealed the patient had developed pseudarthrosis and non-union of the left humerus. Patient initially fractured her proximal humerus 4 years prior.

The Surgical Procedure

An incision was made anterolaterally to the acromion process, and dissection was carried out down to the neck of the humerus. The non-union was opened and all of the fibrous tissue was excised. After preparing the distal shaft and humeral head, a humeral nail was inserted into the shaft. Bacterin's OsteoSelect® DBM Putty was then placed at the non-union site. Once grafting was complete, locking screws were placed.

Post-Operative Course

The patient recovered uneventfully and quickly from surgery. The patient was permitted gentle range of motion for the first 2 weeks. At 6 weeks the patient began physical therapy and was allowed to work with full range of motion. At the 6 month follow-up, the patient had full range of motion and was pain free.

Discussion/Results/Conclusion

The use of Bacterin's OsteoSelect® DBM Putty exhibits unique handling characteristics by having the ability to withstand dissipation in a vascular environment. This allowed for proper placement of the graft without migrating from the non-union site. The successful fusion prevented the necessity of having to perform a hemiarthroplasty on the patient.

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Figure 1 Pre-operative x-rays demonstrate initial fracture and developed non-union.



Figure 2 Surgical x-ray of shoulder shows intra-operative fluoroscopy.

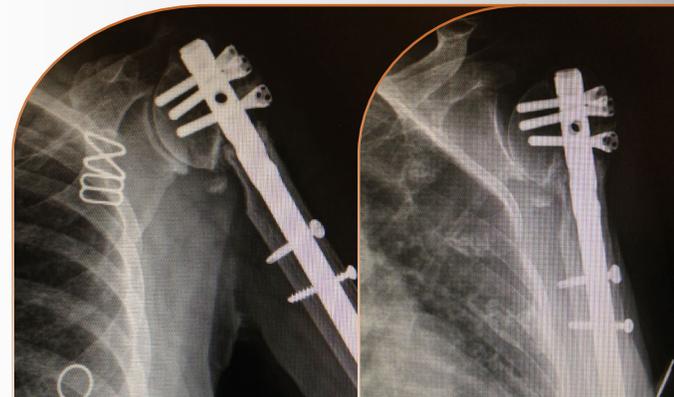


Figure 3 Post-operative x-ray at 2 months (left) and 6 months (right) shows successful bone union and bridging at the fracture site.