

Synthetic Resorbable Bone Putty Enhances Fusion with Stand Alone Cervical Implants - Study of 50 Patients

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Introduction

Fifty patients underwent anterior cervical fusion and were treated with a stand-alone device using autograft with or without a resorbable bone putty. Hemasorb Plus (Abryx) (HP) is a proprietary formulation comprised of granular hydroxyapatite/beta-tricalcium phosphate.

Methods

There were 50 patients; male/female = 25/25; age range of 26 years - 85 years (mean 52.7 years). Patients were divided amongst Group I: stand alone device with HP (n=35), and Group II: stand alone device without HP (n=15). HP was placed as a thin layer at open ends of the cage and autograft was packed in between. Patients were stratified to groups based on the primary surgeon. Patients underwent one-level (n=18), two-level (n=30), and three-level (n=2) fusions for a total of 84 levels. Device distribution and number of levels was as follows: LDR-C (24 patients; 40 levels); Coalition (19 patients; 34 levels), and Stalif-C (7 patients; 10 levels).

Results

Results reported are early at the second postoperative visit for the entire cohort of patients (4 months). Fusion rates: two patients with Stalif-C without HP (n = 2) (Group II); four patients with Coalition plus HP (n = 4) (Group I); and seventeen patients with LDR-C plus HP (n = 17) (Group I). Overall, 21 patients in Group I (42%) and 2 patients in Group 2 (4%) showed evidence of fusion within 4 months.

Conclusions

Our results suggest that autograft plus HP is an effective adjunct to anterior cervical fusion rather allograft.

Learning Objectives

By the conclusion of this session, participants should be able to: 1) Understand the benefits of using of bone putty in anterior cervical fusion, 2) present this option to their patients.