

The Use of Bone Graft Substitute in the Treatment of Benign Bone Lesions: A Case Series

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Background: Bone defect after curettage in treatment of benign bone lesion was a challenging problem. Autogenous bone graft is less desirable because of limited quantity and donor site morbidity. Hence, various bone graft substitutes have been used to fill the defect since they have osteoconductive property and are sufficient for large cavity.

Methods: We retrospectively reviewed all 27 patients with benign bone lesion treated with two types of bone graft substitute. From January 2008 to April 2011, there were 14 male and 13 female patients with the average age of 20.03 years (range 6 to 54 years). Patients were followed a minimum for 6 months. Bone healing was assessed from radiographic study and defined as resorption of the bone graft substitute and replaced with new bone. We also determined complications and MSTS functional score.

Results: The average follow-up was 20.33 months (range 6-48 months). Plain radiographs showed complete incorporation of the gross materials at an average 4.32 months. The average MSTS score was 29.03. There were two local recurrences. Two patients had deep infection and one patient had postoperative fracture.

Conclusion: Bone graft substitute provide a framework for human osteogenesis and avoid donor-site morbidity from autologous bone graft harvesting. The use of them results in predictable bone healing, low complications, and high MSTS in patients treated with these materials.

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