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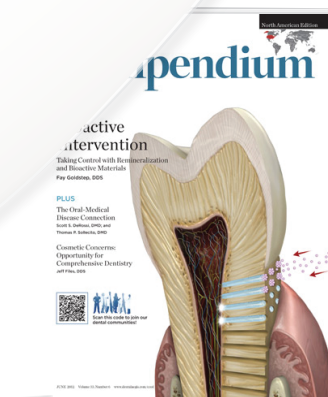
Compendium

”

Enhancing Extraction Socket Therapy with a Biphasic Calcium Sulfate”*

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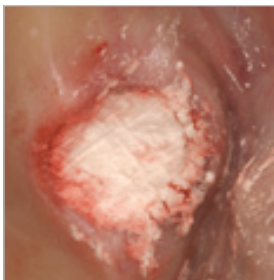


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“Enhancing Extraction Socket Therapy with a Biphasic Calcium Sulfate”



Occlusal view of socket after atraumatic extraction of the involved tooth.



Biphasic calcium phosphate completely filled socket to within 1 mm of gingival margin.

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ABSTRACT.

Objectives

Studies have shown that tooth extraction results in loss of bone volume, which compromises dental implant placement. Prevention of site collapse at the time of extraction is recommended. In this 4-month case series, 40 patients were treated with an innovative biphasic calcium sulfate graft, demonstrating its ability to preserve or augment socket volume and resorb in the time period desired between extraction and implant placement. Some representative samples were retrieved at the time of implant placement and evaluated histologically and morphometrically for vital bone formation.

Materials and methods

A total of 60 teeth were extracted and grafted with Biphasic Calcium Sulfate (BCS^{*}). Preoperative photographs and periapical radiographs were taken of the sites. In most cases, primary closure was not obtained over the graft material and barrier when placed. The graft material is packaged in a sterile syringe. Biphasic Calcium Sulfate (BCS^{*}) powder is wetted with sterile saline before being placed in the socket. Excess liquid was expressed into sterile gauze and the material was injected into the site. After the site was filled to ideal contour, dry gauze was applied and lightly compressed on top of the material. The working time was approximately 2 minutes. Patients were monitored for soft-tissue healing and radiographic evidence of graft resorption and bone formation for 3 to 5 months.

Conclusion

The biologic processes that leave the sites filled with vital bone in this timeframe have led to a 100% success rate in implant placement and loading. Additionally, this bone has maintained its integrity radiographically and enabled support of keratinized tissue with no dimensional alterations over the studied time period and well beyond (Figure 18). BondBone[®] is simple and effective to use in treating extraction defects before dental implant placement, and is a viable material for socket augmentation.

* BondBone[®]