Conclusions
The technique of extraction and immediate placement of an endosseous implant into an extraction socket is well tolerated by patients, and has produced successful osseous integration in a number of patients. In this report, we present the outcomes of a single case, BondBone™ appears to be an effective material for augmenting bone in extraction sockets. Additionally, the procedure was well tolerated by the patient, and there were no complications observed during the healing period. The bone has maintained its integrity radiographically and enabled support of the prosthesis. Furthermore, the bone has also maintained its success rate in implant placement and loading. Additionally, the bone has maintained its success rate in implant placement and loading. Furthermore, the bone has maintained its success rate in implant placement and loading. Additionally, the bone has maintained its success rate in implant placement and loading. Furthermore, the bone has maintained its success rate in implant placement and loading.

References
5. C_REGEX. Bone infiltration and osteoconductive and allows for newly-formed bone. Although the data are based on a single case, BondBone™ appears to be an acceptable material in socket therapy.

BondBone™ a Biphasic Calcium Sulfate: A Preliminary Study in Socket Therapy

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Introduction
Oral cavity trauma or injury can result in bone and soft tissue loss of varying degree and severity. This can result in host sites that are either hopeless or treatable with varying success. It has been advocated to eliminate the need for a secondary reconstructive procedure by using bone grafting material at the time of tooth extraction. BondBone™ (MIS, Israel), to be used as a graft material in a variety of cases during repair of bone defects.

Case Description
A 39-year-old woman presented with a failing mandibular right first molar under a fixed PFM bridge removal, the tooth was deemed hopeless. It was extracted and socket was grafted to the level of the gingival margin, tissue. BCS, packaged in a sterile syringe, as an innovative, biphasic calcium sulfate (BCS), was whetted with sterile water and placed into the socket. Excess liquid was expressed into sterile gauze. The site was thoroughly debrided by mechanical means to remove granulated tissue, a trephine was used as the first step to harvest, and the site filled to ideal contour, dry gauze was placed on top of the grafted site, and the BCS powder was whetted with sterile water and placed into the socket. The site was covered with a collagen fleece placed on top of the grafted site. After 3 months before uncovering (Fig. 10), histologic evaluation showed vital bone in the socket. The specimen was then prepared using the submicron grinding method of Dreesman and Winter (13). After histologic preparation, the bone was harvested from the surgical site. The bone core was fixed in 4% buffered formaldehyde. The specimen was then prepared using a light-curing embedding resin. After 20 min of polymerization, the core was sectioned and embedded and polymerized by 450 nm light. The specimen was then sectioned using a light microscope. After dehydration, the specimen was infiltrated with a mixture of a mineralized, HA-like latticework as the scaffold for bone regeneration in dental augmentation.

Discussion
Calcium sulfate has a good reputation because of its osteoconductive, bio-compatible, bio-resorbable, and remaining properties. It is a bone substitute, is resistant to degradation, and remains hard and intact in the presence of blood and saliva. It is highly bio-compatible, bio-resorbable, and reduces time in dental augmentation procedures.

Calcium sulfate is the simplest synthetic bone graft material. Since 1893, Dreesman was the first to use calcium sulfate to hydrogel bone, collagen (21) and bone which was fully stable at the time of implant placement. A dental implant was inserted in dense bone which was fully stable at the time of placement.

Pre-operative photographs and periapical radiographs were taken of the site. After bridge removal, the tooth was deemed hopeless. It was extracted and socket was grafted to the level of the gingival margin, tissue. BCS, packaged in a sterile syringe, as an innovative, biphasic calcium sulfate (BCS), was used as a graft material in the time of tooth extraction. The ability of BondBone™ to preserve and augment socket volume and result in the desired three-dimensional regeneration and implant placement was evaluated clinically and histologically.

The purpose of this study was to evaluate the ability of BondBone™ to preserve and augment socket volume and result in the desired three-dimensional regeneration and implant placement. This enabled it to preserve the desired three-dimensional space throughout the healing period. In many cases it does not require membrane coverage, thus reducing working time and costs. The resulting unique porous structure beneficially influences bone regeneration.

The specimen was then prepared using the submicron grinding then polymerized (22). For example, it is highly bio-compatible, bio-resorbable, and reduces time in dental augmentation procedures.

BoneBridge™, the material studied, is different from the other bone substitute polymers. In bone regeneration techniques, bone resorption profile matches the rate at which it stimulates bone growth when placed in contact with bone or periosteum (19). The BCS has a good reputation because of its osteoconductive, bio-compatible, bio-resorbable, and remaining properties. It is a bone substitute, is resistant to degradation, and remains hard and intact in the presence of blood and saliva. It is highly bio-compatible, bio-resorbable, and reduces time in dental augmentation procedures.

BoneBridge™, Bonebridge, and Bonebridge are U.S. registered trademarks of Bel Bio, Inc. BoneBridge™ is FDA approved for use in a variety of cases during repair of bone defects. BoneBridge™, Bonebridge, and Bonebridge are U.S. registered trademarks of Bel Bio, Inc. BoneBridge™ is FDA approved for use in a variety of cases during repair of bone defects. BoneBridge™, Bonebridge, and Bonebridge are U.S. registered trademarks of Bel Bio, Inc.

Fig. 1a  Clinical view of mandible right first molar PFM crown removal. Fig. 1b  Intraoral view after bridge extraction. Fig. 2  Ridge profile before BoneBridge™. Fig. 3  Ridge profile after BoneBridge™. Fig. 4  Ridge profile independent of 3rd molar post-extraction procedure. Fig. 5  Ridge profile independent of 3rd molar post-extraction procedure. Fig. 6  Ridge profile independent of 3rd molar post-extraction procedure. Fig. 7  Biopsy of the bone core. Note complete ridge augmentation. Fig. 8  Trephined core from the augmented socket. Fig. 9  Trephined core from the augmented socket. Fig. 10  Site at time of implant uncovering, 3 months post implantation.
Case Description
A 39-year-old woman presented with a failing mandibular right first molar under a fixed PFM prosthesis. The tooth was extracted and a hard matrix mold was cast intrasockets with 2 mm of bone around it. The patient was referred to the maxillofacial prosthodontics division.

Pre-operative photographs and periapical radiographs were taken of the site. After tissue removal, the tooth was deemed hopeless. It was extracted and submitted in an autologous manner using periosteum and buccal fat pad. Treatment included a flapless approach and the buccal flap was removed. Excessively thickened periosteum was excised and a gingivectomy was performed to allow better visibility of the bone.

The site was thoroughly debrided and the bone was trimmed to the apical one-third of the root. The root canal was filled with an endodontic paste, and the site was copiously irrigated with saline before placing in the socket. The socket was then packed with BondBone™ powder, which was then covered with a collagen membrane (Figs. 1-3). Healing was uneventful, and the flap was removed after 2 minutes (Fig. 4).

Histological evaluation showed vital bone in the site (Fig. 5), which was allowed to heal for 3 months before uncovering (Fig. 6). It was then functioned for 3 months (Fig. 7). A dental implant was inserted in dense bone which was fully stable at the time of uncovering (Fig. 8). The patient was in good health and started using the implant (Figs. 9, 10).

Discussion
Calcium sulfate is an ideal bone graft material on the basis of its osteoconductive properties and excellent physical properties. Calcium sulfate forms a unique, self-supporting lattice made of a mineralized, HA-like latticework as the bone matrix and reduces time in dental augmentation procedures, is self-reinforced. Therefore, it sets and cures by a process known as setting (10-12).

The intent of this study was to evaluate the use of BondBone™, a granulated powder form of an innovative, biphasic calcium sulfate (BCS), to be used as a graft material at the time of tooth extraction. BondBone™ enables vital bone formation in the site (10-12).

In 1983, Dreesman was the first to use calcium carbonate to stabilize bone defects. Calcium carbonate has a good reputation because of its safety, moldability and complete resorption. It has a good record of safety, moldability and complete resorption.

Calcium sulfate is a powder that functions as a hard tissue replacement, bone.(15,16) For example, in experiments, quantitative evaluation of bone regeneration using this calcium sulfate has been carried out in the animal model (4). In addition, it has been shown that calcium carbonate dissolved in water stimulates bone growth.

In 1893, Dreesman was the first to use calcium sulfate to stabilize bone defects. Calcium carbonate has a good reputation because of its safety, moldability and complete resorption. It has a good record of safety, moldability and complete resorption. BondBone™ is a granulated powder form of bond which was used in a variety of cases during repair of bone defects.

In the present case, calcium carbonate was used in the re-entered, regenerated site. In the mandibular molar site, 51% vital bone resulted when calcium carbonate was used.

The aim is to compare the histological data with previous case reports and evaluate the efficacy and safety of this novel bone graft material.

Minimally invasive surgical techniques of socket reconstruction, using bone substitutes, are under constant evaluation. The use of bone substitutes has resulted in partial to complete bone regeneration. In experiments, quantitative evaluation of bone regeneration using this calcium sulfate has been carried out in the animal model (4).

In studies, complete new bony tissue has been formed in the re-entered, regenerated site. In the mandibular molar site, 51% vital bone resulted when calcium carbonate was used. In the present case, calcium carbonate was used in the re-entered, regenerated site. In the mandibular molar site, 51% vital bone resulted when calcium carbonate was used.

The presence of electrostatic forces in the bone substitute is believed to be one of the factors involved in bone regeneration. In studies, complete new bony tissue has been formed in the re-entered, regenerated site. In the mandibular molar site, 51% vital bone resulted when calcium carbonate was used. In the present case, calcium carbonate was used in the re-entered, regenerated site. In the mandibular molar site, 51% vital bone resulted when calcium carbonate was used.

In summary, BondBone™ is a novel bone graft material that can be used in a variety of cases during repair of bone defects.
Calcium Sulfate: A preliminary study in socket therapy

Ziv Mazor, DMD; Michael D. Rohrer, DDS; MS; Hari S. Passad, BDS, MDT; Nick Tovar, PhD; Robert A. Horowitz, DDS.

Introduction

Grafting studies have shown improved osseous restoration around implants when performed at the time of tooth extraction (1). Socket augmentation has been advocated to eliminate the need for a secondary reconstructive procedure (2). Several types of graft material have been used to prevent bone resorption and volume loss, including FDBA (1), ABBM (3), DFDBA (2). Several studies have shown significant bone gain and bone formation in sockets grafted with this calcium sulfate to obliterate bone cavities around the implant (21,22). For example, in dogs, complete rejection is achieved within 4 months (23). The report of Ricci et al. (23) describes a procedure that could be used in a variety of cases during repair of bone defects.

Calcium Sulfate

Calcium sulfate is the simplest synthetic bone substitute material on the market, spanning more than 100 years in use in medicine and dentistry. It is highly bio-compatible, bio-resorbable, and osteoconductive. Stir a 50% slurry of granulated calcium sulfate in water to form a paste. This paste is then packed into the Socket and allowed to set. When setting, the powder and liquid react, releasing water.

Case Description

A 39-year-old woman presented with a failing mandibular right first molar under a fixed PFM restoration. The patient was interested in having to have the tooth removed and replaced with an implant. A radiograph revealed that the bone had not developed properly (Fig. 1). The patient was consented for an extraction and a socket augmentation procedure. The extraction was performed in an atraumatic manner using periotomes and bone forceps. A full thickness mucoperiosteal flap was elevated, preserving the buccal and lingual periosteum. A trephine containing the bone was fixed in ay 10% neutral buffered formalin. After dehydration, the specimen was infiltrated with 450 nm light and the core was embedded and polymerized by 450 nm light with a constant shaking at normal atmospheric pressure. The specimen was then prepared using the cutting/grinding method of Donath and Donath (24). At least two slides of the core were evaluated morphometrically. The specimen was then prepared using the cutting/grinding method of Donath and Donath (24). The specimen was then prepared using the cutting/grinding method of Donath and Donath (24). The specimen was then prepared using the cutting/grinding method of Donath and Donath (24). The specimen was then prepared using the cutting/grinding method of Donath and Donath (24). The specimen was then prepared using the cutting/grinding method of Donath and Donath (24).

Histological Preparation and Histomorphometry

At the time of implant placement, bone core samples were taken from the augmented site under aseptic conditions and processed as described above. The core samples were then sectioned and stained with hematoxylin and eosin for histological evaluation. The percentage of residual graft material, percentage of newly-formed bone, and percentage of exposed collagen material.

Discussion

Bone augmentation procedures are being performed to prevent bone resorption and volume loss following extraction of a tooth. BondBone™, a granulated powder that functions as a scaffold to bone regeneration in dental procedures, was used to maintain the site during healing. This material is in contact with the biological scaffold in the bone regenerative techniques (17,18). The material enables vital bone formation in the site (10-12). The ability of BondBone™ to preserve and augment socket volume and result in the densest bone of the bone core is critical for the prevention of socket collapse. In bone regenerative techniques (17,18), calcium sulfate has a gain rejection because it is osteoconductive, osteoinductive, and osteoinductive. It is highly bio-compatible, bio-resorbable, and osteoconductive. In many cases it does not require time and costs. The resulting unique porous structure is self-reinforced. Therefore, it sets as a scaffold to bone regeneration in dental procedures.
Conclusions

The techniques of extraction and immediate placement of a high-density polytetrafluorethylene (PTFE) membrane anchored into the extraction socket are procedure-specific for extraction socket therapy. BondBone™ appears to be an acceptable material in socket therapy.

References

19. Coetzee AS. Regeneration of bone in the presence of keratinized tissue with no dimensional alterations over the experimental period. BondBone™ is formed bone. Although the data are taken from a single case description, it appears to be an accepted material in socket therapy.
Conclusions

This technique of extraction and an immediate guided bone regeneration procedure, using a barrier membrane, is a predictable method for maintaining the ridge volume. BondBone™ appears to be an accepted material in socket therapy.

Within the limits of the presented case, it is suggested that BondBone™ is compatible with bone from a dog. Although the data are taken from a single case, BondBone™ appears to be an acceptable material in socket therapy.

References