Negotiating the severely resorbed extraction site: A clinical case report with histological sample

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The treatment of an infected socket with a severe facial dehiscence/fenestration defect presents a therapeutic dilemma to the dental team. Both implant-supported restoration and fixed partial denture are viable options to restore function and occlusion, each with its benefits and disadvantages. In the present case report, a multi-stage regenerative approach was selected to enable an implant-supported single crown. The first phase of the treatment after extraction of the maxillary central incisor was the stabilization of the blood clot with a collagen plug.

Six weeks later, the surgical site was re-entered and the socket was grafted with biphasic calcium sulfate (BCS). Six months later, a dental implant was placed and a core biopsy taken. However, the central portion of the facial defect demonstrated only partial regeneration resulting in exposure of six implant threads. Freeze-dried bone allograft (FDBA) and a collagen membrane were put in this site to augment the ridge and cover the exposed threads. The histology of the bone core showed a complete resorption of the grafted material with the presence of new woven bone throughout the specimen. Clinically, complete defect regeneration and augmentation of the alveolar ridge was attained after 4 months. Thus, the clinician should consider the pros and cons of this regenerative approach along with other more conservative treatment alternatives when negotiating similar cases.

SUMMARY.

The treatment of an infected socket with a severe facial dehiscence/fenestration defect presents a therapeutic dilemma to the dental team.

Both implant-supported restoration and fixed partial denture are viable options to restore function and occlusion, each with its benefits and disadvantages. In the present case report, a multi-stage regenerative approach was selected to enable an implant-supported single crown. The first phase of the treatment after extraction of the maxillary central incisor was the stabilization of the blood clot with a collagen plug.

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