The ice cream cone technique, a predictable treatment possibility

Toro, M.
Mendez, C.
Chaple-Gil, A.-M.
Yoma, T.
Fernández, E.

Abstract
Introduction: The volumetric preservation of bone and soft tissue after a tooth extraction has special relevance in the esthetic zone when it will be rehabilitated by a dental implant. Objective: Describe the prosthodontics treatment in a socket with advanced buccal bone resorption, with a flapless technique for guided bone regeneration and with a dental implant and implant-supported single fixed prosthesis.

Case presentation: A case is presented of a male 62-year-old partially dentate patient. Radiographic examination showed the presence of advanced buccal bone resorption in relation to the maxillary left lateral incisor. It was a result of the root displacement secondary to root fracture. In a first surgical phase the lateral incisor was extracted using an atraumatic periotome technique. Particulate cortical bone allograft was compacted into the site to fill the space that was previously occupied by the root of the tooth. Temporary restoration was performed using the extracted natural tooth, which was adhesively bonded to the adjacent teeth. Four months after grafting the extraction site showed an adequate height and width of the bone. In a second surgical phase, an implant was placed. Six months after implant placement, osseointegration was clinically confirmed and a provisional crown was screwed on the implant performed. The final restoration with a zirconium dioxide abutment and a full ceramic crown was obtained and cemented. Conclusions: Regeneration of the buccal plate was possible through the use of particulate cortical bone allograft and a resorbable collagen membrane adapted to the bone defect and placed in a position to recreate the buccal plate. This allowed the installation of an implant 4 months later, the procedure allowing esthetic and functional results using a single fixed prosthesis.

Author keywords
Dental implant
Guided tissue regeneration
Surgical flap
Tooth socket