INTRODUCTION

The most common complication of losing teeth is alveolar bone resorption and apical migration of soft tissue, challenging aesthetics and harmony, especially in the anterior sector. This type of treatment consists in a series of stages that include implant site development, implant surgery, provisionalization and definitive restoration fabrication/maintenance. Surgery must be planned within some boundaries. Implant must be placed 2 to 4mm apically of the expected gingival margin position, 2mm of facial bone is recommended and implant should be positioned slightly palatal to the incisal edge and should be 2mm away from adjacent teeth and 3mm away from other implants. Soft tissue conditioning assumes a major role in obtaining the correct papilla growth as well as a harmonious gingival contour. It’s through the modification and modulation of the provisional restoration that we will optimize the aesthetics and function of the restoration of the missing elements. In order to achieve a correct soft tissue conditioning, it should be used a provisional crown, to be modified in increments as to condition a natural and well integrated emergence profile. This is done by filling and maximizing the soft tissue volume. When the conditioned soft tissue is stable and supported, casts are made using specific techniques in order to alter the impression abutment so as to achieve a acrylic resin accurate transfer of peri-implant soft tissue emergence profile. This is done so the lab can accurately reproduce the correct anatomy and gingival contour. The goal of this clinical case report was to evaluate factors and techniques used on the optimal treatment and conditioning of peri-implant soft tissues that allow us to achieve a harmonious and aesthetic restoration.

CLINICAL CASE DESCRIPTION

Caucasian patient, male and 70 years, attended the appointment showing absence of the tooth 11. His main complaint was the type of this rehabilitation (removable acrylic prosthesis 1 element). The main goal would be to give back the aesthetic and functional role (Fig 1-3).

SURGICAL PROCEDURE

Infiltrative anesthesia with Articaine 72mg / 1.8ml and adrenaline 0.009mg / 1.8ml (Articaine, Inbisa, Barcelona, Spain). Supracrestal incision extending from the mesial papilla tooth 21 to the mesial papilla tooth 12, without using discharge: Detachment of the flap mucoperiosteal, starting at the level of the papilla and extending at along the Incision. (Fig 5 and 6)

Implant placement Nobel Speedy Groovy 4x15mm (Nobel Biocare AB Sweden) in the region of the tooth 11, respecting the biological principles in order to optimize the final result. (Fig 7, 8 e 9)

PROSTHETIC PROCEDURE

Adaptation and placement of immediate provisional crown. (Fig 13)

After 6 months, the straight abutment (multi-unit abutment 2mm) was removed and proceeded to changes in the temporary crown with a new anti-rotational abutment, placed directly to the head of the implant. (Fig 14 e 15)

The temporary crown has been progressively modified to improve the three-dimensional shape of the soft tissue to obtain the desired result. (Fig 16 e 17)

Final impression was made according to the open tray technique with Individualization of the impression abutment with acrylic auto-polymerizable resin (Pattern Resin LS, GC America, Inc. Ashville) and light body consistency (Flexitime Easy Putty Heraeus Kulzer GmbH, Hanau, Germany) and rig body consistency (Heraeus Kulzer Flexitime Correct Flow GmbH, Hanau, Germany).

Photographic introral record and panoramic rx at final stage. (Fig 18,19, 20, 21 e 22)

CONCLUSIONS AND CLINICAL IMPLICATIONS

Soft tissue morphology and gingival contour can be improved through conditioning promoted by a provisional crown customization.

Material: Laser machined, cylindrical, implantation location, gingival biopsy, bone quantity and quality, adjacent teeth support and post-surgical care are limiting factors concerning the final outcome.

Prominent in the socio-psychological factors that influence the adequate aesthetics, such as parafunctional habits, post-surgical care motivation, oral hygiene techniques and maintenance appointments.