Immediate post extraction Implant Placement with Immediate PMMA Provisionalization in Sjogren Syndrome Adult Female

Case Report
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Introduction
Sjogren’s Syndrome (SS) is a chronic autoimmune disease that affects salivation and consequently the health of oral tissues at incidence of 0.2% of the population [1], a systemic review gave an average of 93.7% survival of implants in such patient’s group [2], and they are good candidate for implants as they can’t wear dentures owning to the lack of saliva and sensitive mucosa [3].

Discussion
The use of osseointegrated implant to replace missing dental elements, almost 50 years ago, represented a huge evolution in dental rehabilitation [4]. Over the years, many solutions and techniques have been proposed in order to improve the clinical performance of dental implants, decrease bone loss, and improve peri implant soft tissue health [5]. Implant shape has evolved with the introduction of not only cylindrical structures, of most efficient coil design and of better implant-prosthetic conical connections and abutments, the scientific literature agrees that implant-prosthetic rehabilitations have a 5-years survival rate of approximately 95% and greater than 89% after 10-years [6]. Nevertheless, the current trend in implant surgery is to further improve these clinical procedures by reducing total rehabilitation duration using at the same time less invasive surgical techniques.

Guided implant protocols help clinicians to simplify their procedures starting from the diagnostic phase up to the realization of the final prosthetic restoration, flapless implant placement permits a reduction of bone resorption, which occurs when periosteal tissue is separated from underneath cortical bone. Moreover, it reduces surgical and post-surgical times, which are necessary to remove the stitches, and gave the ideal spatial position of the implant within the bone and its final prosthesis [7,8].

The immediate replacement of the lost root prevents the loss of alveolar bone in height and width [9]. The results of extraction are well known: 40% to 60% alveolar bone loss in the first 2 to 3 years and a resorption rate of 0.5% to 1% every year for the rest of the patient’s life [10,11].

A stress-free healing period is generally recommended to achieve osseointegration of dental implants without interposition of fibrous scar tissue [12]. The traditional guidelines recommend a six-to twelve-month healing period for the alveolar bone following tooth extraction [12,14]. The advantages of immediate implant placement include a reduction in treatment time, a reduction of surgical procedures and a reduction of aesthetic rehabilitation time [15,16]. The provisionalization makes it possible to condition implant soft tissues in order to preserve the interproximal papillae and restore a curved/rounded appearance of the gingival margin; it also permits immediate healing of the soft tissue with the formation of an adequate mucosal seal [17] moreover peri-implant soft
tissues responded more favorably to screw-retained crowns when compared with cement-retained crowns [18]

The Aim of this article is to describe a clinical case and short follow up outcomes of soft tissue healing in lab based Sjogren Syndromatic adult female with chronic periodontitis, in which fractured endodontically treated maxillary anterior teeth were replaced by four 16 mm long, immediately loaded post extraction implants using a computer surgical guide, conical connection platform, multiunit abutments, which permits a reduction of the number of implant components , diminished micro gap and give better healing process for soft and hard tissue while at the same time maintaining acceptable aesthetic and functional outcomes.

MATERIALS AND METHODS

A 28 years old female with Sjogren Syndrome with moderate oral hygiene, high plaque index with chronic periodontitis and multiple endodontically treated teeth, multiple restorations, badly decayed upper and lower molars, and loose fracture bridge over the six anterior maxillary teeth seek for dental rehabilitation.

A CBCT scan was made for the upper and lower arch and a DICOM data has been collected and reviewed using the BlueSky Bio software. The plan was made to extract teeth #17 #16 #13 #12 #11 #21 #22 # 23 # 27 in same visit and place and immediate implants utilizing a tooth and soft tissue supported surgical guide planned using Implant Studio (3shape) and printed by (Cortex, IL)

Atraumatic extraction was done using periotome and 4 (Dynamic Cortex, IL) 16 mm long Standard Diameter Implants at socket #13 #11 #21 # 23 as the bone permits giving the best primary stability and bone preservation capacity Featuring a 12-degree conical connection that ensures a secure fit between abutment and implant and minimizes micro-movements reducing bone loss at the crestal level. It has a 12-position cone index within the conical connection to help orient the implant during insertion giving more prosthetic options and placing the abutment into the proper position.

a 18 degree 2 mm height multi-unit abutment has been utilized for better soft tissue health as the interface being away from the bone level and gives better prosthetic alignment and provisionalization.

3 (Dynamic Cortex, IL) were placed through the same surgical guide at #17 #16 #27 with internal hex connection platforms.

Conclusion

Soft tissue healing in SS with Immediate implant placement and immediate provisionalization in the anterior esthetic zone is highly predictable owning to the surgical techniques, implant design, prosthetic options, by giving particular care to each of the previous mention factors, predictable and reliable results can be obtained and maintained.
References


2. Daniel Almeida, Katia Vianna, Patrícia Arriaga, Vittorio Moraschini Published: December 14, 2017


