Case study

Immediate Dentoalveolar Restoration (IDR) using MIS V3 implant.

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Prosthetic part: Dr. Marcos A. Fadanelli (Brazil)
Technician: Arno Egon Gressler (Brazil)

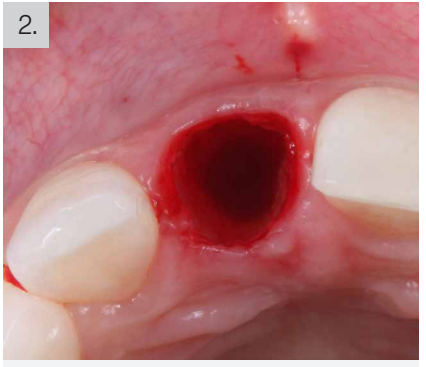
Dr. José Carlos Martins da Rosa

- Graduation course in Dentistry, Federal University of Santa Maria – UFSM – Santa Maria/RS – Brazil, 1988
- Specialization course in Periodontics, São Paulo Association of Dental Surgeons – APCD – Bauru/SP – Brazil, 1991
- Specialization course in Prosthodontics, Center of Dental Research São Leopoldo Mandic – CPO SLMandic – Campinas/SP – Brazil, 2003
- Master of Science in Prosthodontics, Center of Dental Research São Leopoldo Mandic – CPO SLMandic – Campinas/SP – Brazil, 2005
- PhD in Oral Implantology, Center of Dental Research São Leopoldo Mandic – CPO SLMandic – Campinas/SP – Brazil, 2013
- Author of the book “Immediate Dentoalveolar Restoration (IDR) - Immediately loaded implants in compromised sockets”.
- Private Practice in Caxias do Sul/RS – Brazil

1.

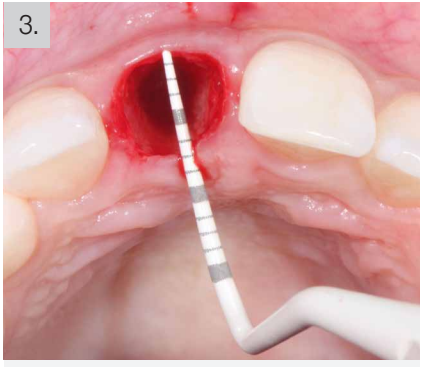
Clinical evaluation showed a condemned right central incisor with total loss of buccal wall and thin periodontal biotype.

2.



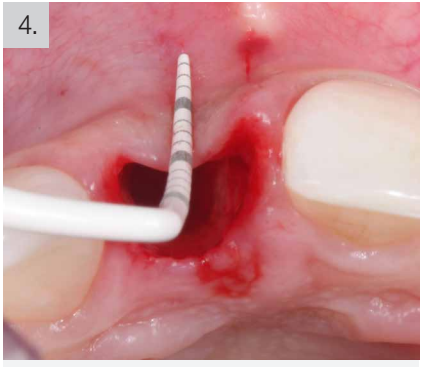
The damaged tooth were extracted applying minimally invasive procedures, favoring the preservation of the remaining bone.

3.



In order to select the correct implant diameter the socket dimension were evaluated from buccal to palatal aspect using a periodontal probe. As the B-P dimension was 7mm the implant selected was 4mm diameter expecting 3mm gap at the buccal aspect.

4.



The buccal defect was around 10mm height. It was confirmed a very thin periodontal biotype. A carefull curettage of the socket was done to remove completely the granulation tissue and remains of periodontal tissue.

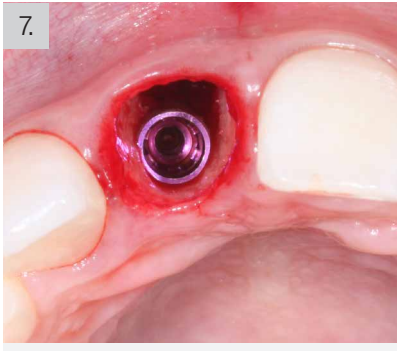
5.

The site was prepared using MIS drills kit.

6.

The MIS V3 implant (13mm height and 4mm diameter) was anchored at the remaining palatal bone in the 3D position favoring the construction of the screwed provisional crown. It was possible to obtain 50Ncm of primary stability.

7.

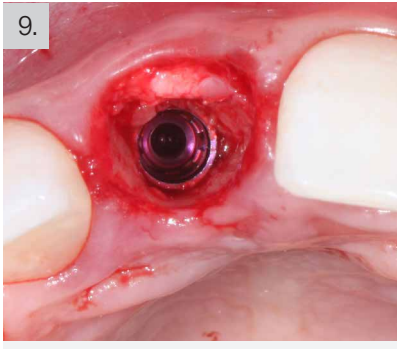


The 3D positioning of the implant allowed a gap of 3mm at the buccal aspect.

8.

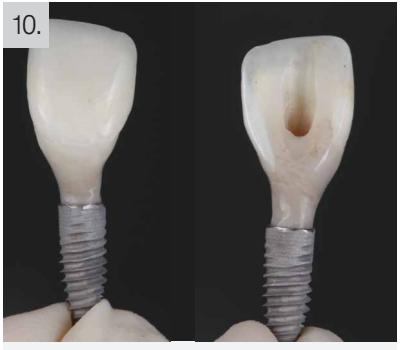
The triple graft (connective, cortical and cancellous bone in one single piece) harvested from maxillary tuberosity were inserted at the buccal defect to recover hard and soft tissue damaged.

9.



Occlusal view showing the 3mm gap filled with triple graft and particulate bone graft harvested from maxillary tuberosity.

10.



A screwed provisional crown using the same crown of the patient was manufactured with an adequate emergence profile allowing space to correct acommodation of the tissues.

11.

Immediate provisional crown installed out of occlusion.

12.

Soft tissue healed and maintained in the appropriate position after 3 months.

13.

Zirconia abutment in position showing excellent relationship with soft tissue completely healed.

14.

The porcelain crown insertion with ideal emergence profile.

15.

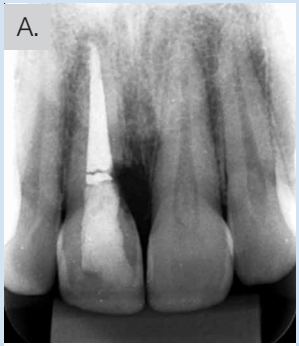
Clinical follow-up after 1 year showed stability of soft tissue countour regarding gingival margin and papillae.

After 1 year

16.

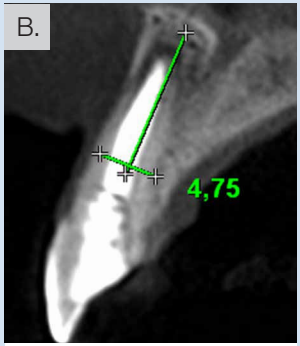
X-ray and CBCT

A.



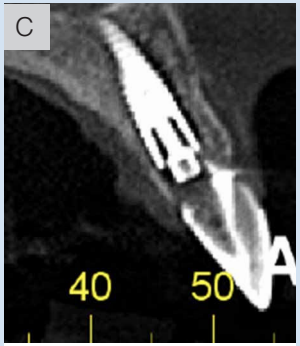
Day of placement.

B.



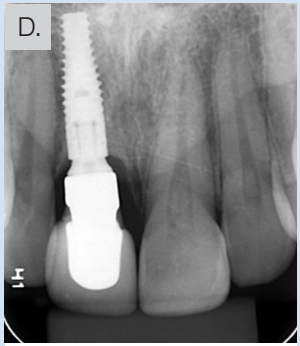
CBCT before the IDR surgery.

C



Soft tissue CBCT image 3 months after the procedure showing the buccal wall totally remodeled.

D.



1 year follow-up.