New Surgical Technique

IMMEDIATE DENTOALVEOLAR RESTORATION - 2-DAY IDR COURSE

Immediately loaded implants in compromised sockets

SUMMARY OF THE COURSE

Single-tooth replacement in the esthetic zone has been one of the most common indications for dental implant placement. Compromised teeth are removed using atraumatic principles and immediately replaced by an implant-supported provisional restoration, with excellent esthetic, biological, and functional results.

However, in cases of compromised sites with bone loss/gingival recessions, the clinical scenario presents a different dilemma. Until now, all developed surgical recommendations required long-term treatment with possible undesirable complications in the tissue architecture.

The Immediate Dentoalveolar Restoration (IDR) is a surgical and prosthetical technique established to broaden indications for immediate loading on individual teeth. In this way, tissue losses with varied extensions are reconstructed in the same surgical session of implant placement and provisional crown installation, reducing the number of interventions and keeping predictability on esthetic aspects. The IDR protocol was developed more than 9 years ago from the need to minimize the treatment time and morbidity of reconstructive procedures used in these cases.

In the course we discuss the scientific basis, the step-by-step technique and indications. The IDR technique, which advocates minimally invasive surgery, flapless procedures, is presented as a viable and reproducible alternative.

It is presented several cases, which showed one or more compromised socket walls of the tooth involved, with or without changes of the gingival margin, some with more than 9 years of clinical, radiographic and CT scan follow-up.

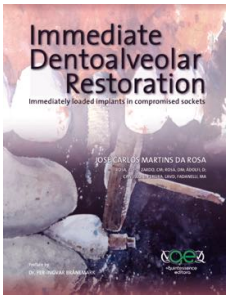
COURSE PROGRAM

1. Immediate loading on intact sockets
2. Considerations about the relationship between the thickness of buccal bone wall and ideal positioning of the implant
3. Gaps in sockets: a new approach for selecting of implant diameter in post-extraction sockets
4. Methods of measuring the degree of tissue loss in the regions involved
5. Classification of socket bone defects
6. Use of the maxillary tuberosity as a donor site – tissue biology and surgical technique
7. Immediate Dentoalveolar Restoration protocol
8. Emergence profile design on implant-supported prosthesis
9. Immediate loading in alveolar bone defects with and without gingival recessions
10. Indications for the use of cortico-cancellous and triple graft
11. Case series report
12. Complications and how to avoid them
13. New researches and clinical studies on IDR

LEARNING OBJECTIVES

a. This course is designed for practitioners who desire to improve their management of compromised fresh extraction sockets.
b. Understand the principles and indications of the Immediate Dentoalveolar Restoration (IDR) concept.
c. Learn the step-by-step technique.
d. Learn to evaluate the bone defect area for diagnosis and technical application.
e. Learn how to harvest an autogenous bone graft from maxillary tuberosity.
f. Management of the graft and complete reconstruction of the alveolar defect.
g. Obtaining the ideal emergence profile of the crowns.
h. Modern concepts in implant-supported restorations.

THE BOOK

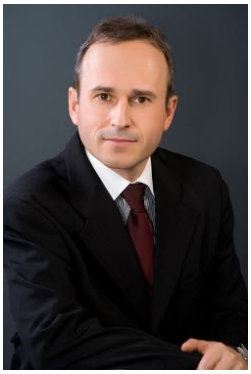


The Immediate Dentoalveolar Restoration was also theme of the book of the same name launched in Portuguese language in 2010 and in Spanish language in 2012 by Santos Publishing. The English language version was launched in 2014 by Quintessence Publishing. The IDR book was launched in Mandarim by Quintessence Publishing in 2015.

THE AUTHOR OF THE BOOK

José Carlos Martins da Rosa

- Graduation course in Dentistry, Federal University of Santa Maria – UFSM – Santa Maria/RS – Brazil, 1988.
- Specialization course in Periodontics, Associação Paulista dos Cirurgiões-Dentistas – APCD – Bauru/SP – Brazil, 1991.
- Specialization course and Master of Science in Prosthesis, CPO SLMandic – Center of Dental Research São Leopoldo Mandic – Campinas/SP – Brazil, 2005.
- PhD in Implantology, CPO SLMandic – Center of Dental Research São Leopoldo Mandic – Campinas/SP – Brazil, 2014.
- Private Practice, Caxias do Sul – RS – Brazil.



PUBLISHED ARTICLES

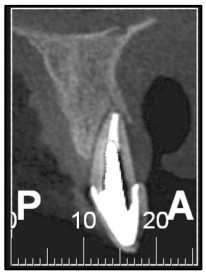
1. Rosa JCM, Rosa DM, Rosa ACPO, Zardo CM. Immediate loading after tooth extraction: integrity of the supporting tissues and need of grafts. *Int J Braz Dent* 2008;1(4):52-6.
2. Rosa JCM, Rosa DM, Zardo CM, Rosa ACPO, Canullo L. Immediate dentoalveolar restoration postextraction with platform switching implant placement and bone grafting – a clinical case. *ImplantNews* 2009;6(5):551-8.
3. Rosa JCM, Rosa DM, Zardo CM, Rosa ACPO, Canullo L. Reconstruction of damaged fresh sockets by connective-bone sliver graft from the maxillary tuberosity, to enable immediate dentoalveolar restoration (IDR) – a clinical case. *Int Magazine Oral Implantol* 2009;10(3):12-7.
4. Rosa JCM, Rosa DM, Zardo CM, Rosa ACPO, Adolfi D. Immediate dentoalveolar restoration – Immediate loading of implant in damaged fresh extraction socket

with gingival architecture involvement, using bone sliver graft from maxillary tuberosity: a clinical case. *TeamWork* 2010;3(2):22-41.

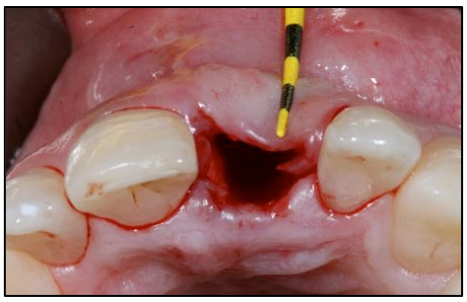
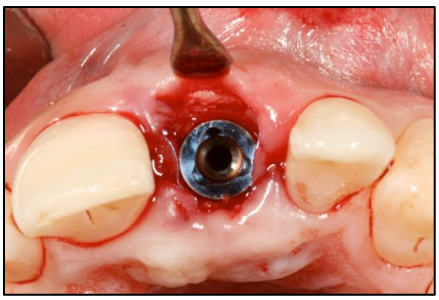
5. Rosa JCM, Fadanelli M, Rosa ACPO. Surgical and prosthetic replacement of a maxillary central incisor with indication for extraction. Part I. Ideal positioning of the implant in post-extraction socket. *Journal Tips* 2012; v1. n1: 12-15.
6. Rosa JCM, Fadanelli M, Rosa ACPO. Surgical and prosthetic replacement of a maxillary central incisor with indication for extraction. Part II. Construction of provisional crown with adequate emergence profile. *Journal Tips* 2012; v1. n2:134-138.
7. Canullo L, Rosa JC, Pinto VS, Francischone CE, Gotz W. Inward-inclined implant platform for the Amplified Platform-Switching Concept: 18-month follow-up report of a prospective randomized matched-pair controlled trial. *IJOMI – The International Journal of Oral & Maxillofacial Implants* 2012;27(4):927-34.
8. Rosa JCM, Rosa AC, Rosa DM, Zardo CM. Immediate Dentoalveolar Restoration of compromised sockets: a novel technique. *Eur J Esthet Dent* 2013;8(3):432–43.
9. Silva DBNF, Neves LC, Querino E, Rosa JCM, Barreto MA. Behavior of peri-implantar tissue in the immediate implant and provisionalization: Literature review. *Dental Press Implantology* 2013; 7(3):41-51.
10. Rosa JCM, Rosa ACPO, Francischone CM, Sotto-Maior BS. Recovering the function and aesthetics of fractured tooth using the Immediate Dentoalveolar Restoration technique: a case report with 3-year follow-up. *DentalPress Implantology* 2014 Jan-Mar;8(1):86-94.
11. Rosa JCM, Rosa ACPO, Francischone CM, Sotto-Maior BS. Esthetic outcomes and tissue stability of implant placement in compromised sockets following Immediate Dentoalveolar Restoration technique: Results of a prospective case series at 58 months follow-Up. *Int J Periodontics Restorative Dent* 2014;34:199-208.
12. Rosa JCM, Rosa ACPO, Francischone CE, Sotto-Maior BS. Selection of implant diameter in post-extraction sockets: A new approach. *Dental Press Implantology* 2014 Apr-June;8(2):80-9
13. Rosa JCM, Rosa ACPO, Fadanelli MA, Sotto-Maior BS. Immediate implant placement, reconstruction of compromised sockets, and repair of gingival recession with a triple graft from the maxillary tuberosity: A variation of the Immediate Dentoalveolar Restoration technique. *Journal of Prosthetic Dentistry* 2014;112(4):717-722.
14. Rosa JCM, Rosa ACPO, Francischone CE, Cardoso MA, Alonso AC, Capelozza L. Post-traumatic treatment of the upper incisors by Immediate Dentoalveolar Restoration with long-term follow-up. *Compendium of Continuing Education in Dentistry* 2015 Feb;36(2):130-34.

CLINICAL CASES

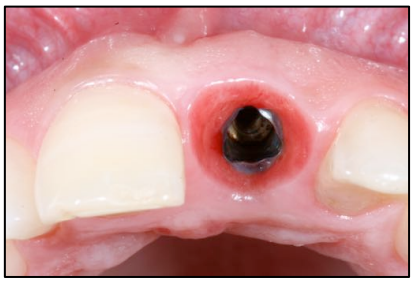
CASE 1

Before: left central incisor compromised and total buccal bone loss.

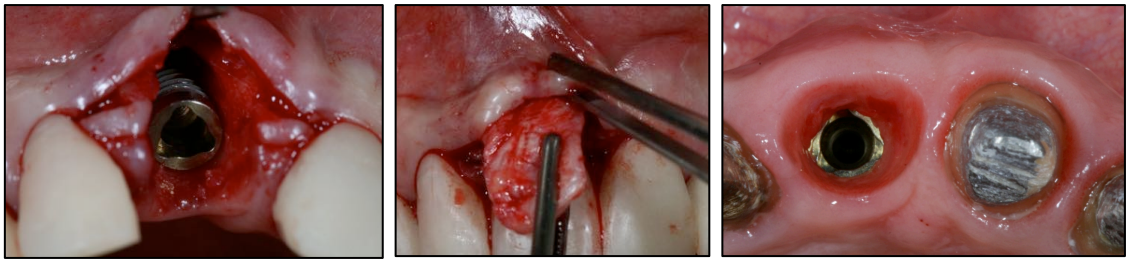
After tooth removal and bone reconstruction, using *cortico-cancellous graft* harvested from the maxillary tuberosity.



Clinical images and CBCT 5 years after IDR procedure.

CASE 2

Before: right central incisor with significant gingival recession apart from the bone defect at the buccal bone wall.



After tooth removal, the bone defect at the buccal aspect can be seen. A *triple graft* (connective tissue, cortical bone and cancellous bone) was inserted. On the rigth: six months after the IDR procedure.

Clinical control 6 years later. The CBCT scan shows stability of the buccal bone plate and the thickness of soft tissue.