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The First Biological Respect Protocol: A Biodigital Technique for Definitive Customized One-Time Abutments—A Case Report

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Background/Objectives: Dental implants represent a viable solution for replacing missing teeth; however, multiple disconnections and reconnections of intermediate abutments contribute to the apical displacement of the peri-implant connective tissue barrier, resulting in additional marginal bone loss. To the best of our knowledge, no definitive customized abutments currently exist that are specifically designed according to the morphology of the tooth to be replaced and its position within the dental arch, allowing for digital planning within the prosthetic implant design and insertion during the surgical procedure without subsequent disconnection.

Methods: The First Biological Respect (FR) technique, described in this case report, enables the digital planning not only of the implant but also of the patented FR customized- shaped, definitive abutment and associated FR prosthetic components. The FR technique was applied to a case involving an immediate post-extraction implant in position 12. Results: With the limitations of a case report, the application of the FR protocol demonstrated stable crestal bone le-

vels at the 1-year follow-up. Additionally, soft tissue volume was maintained at 6 months, reflecting the accuracy of the customized prosthetic components in supporting, guiding, and protecting peri-implant soft tissues. At the 1-year follow-up, an increase in soft tissue volume was observed, likely attributable to tissue maturation and the further customization of the definitive prosthetic elements.

Conclusions: The FR technique represents a viable therapeutic alternative that, through its patented, fully customized components, allows for the digital planning of the implant, as well as the customized definitive abutment, coping, provisional, and final prosthetic framework. This facilitates a single-stage surgical and prosthetic approach. By eliminating the need for repeated abutment disconnections, this method supports the long-term stability of both hard and soft peri-implant tissues while also reducing overall treatment time for both clinician and patient. Further studies involving larger patient cohorts are necessary to validate this protocol.

Biography

Silvia Rizzuto is a distinguished dental surgeon and clinician at Centro Odontoiatrico Rizzuto in Italy. She specializes in digital dentistry, implant prosthetics, and advanced restorative techniques. She is known for integrating innovative biodigital workflows into everyday clinical practice. Her clinical focus includes customized one-time abutments and biologically guided implant protocols. She has contributed to several case studies and continues to research digital optimization in implantology. Dr. Rizzuto actively participates in international conferences to share advancements in prosthetic dentistry. Her commitment to precision and patient-centered treatment defines her leadership in modern dental care.