



The aesthetic and functional rehabilitation in the posterior region



Aydin E¹, Nentwig GH¹

¹Poliklinik für zahnärztliche Chirurgie und Implantologie, Zentrum der Zahn-, Mund- und Kieferheilkunde (Carolinum) der Johann Wolfgang Goethe-Universität, Frankfurt am Main

Introduction

The rehabilitation of the posterior area can be difficult, if due to inflammation a hard and soft tissue deficit exists. The aim of this case report is to present the aesthetic and functional rehabilitation of a posterior single tooth gap.

Material and methods

A 25-year-old patient presented with a request of the rehabilitation of the gap in region 36 in the clinic for dental surgery and implantology. After clinical and radiographic examination, a hard and soft tissue deficit was present. The width of the keratinized, attached gingiva was reduced. There was an in-depth clinical and radiographic examination (Fig. 1-4). The view of the surgical area was realized with a crestal incision in region 36 and each mesial and distal marginal releasing incisions (Fig. 5). After marking the implant position, it was carried out to prepare the implant site with bone spreaders to avoid a lateral augmentation. It was followed by the implant bed preparation and implantation in region 36 with transgingival healing with a sulcusformer (Ankylos C / X®, 11mm length and 3.5mm diameter, Dentsply Implants, Germany) (Fig. 6-8). Wound healing was timely and the monofilament sutures were removed eight days later. There was a mucosal transplant from the palate to improve soft tissue 6 weeks before the start of the prosthetics. As part of the prosthetic restoration it was carried out by the fitting of hybridabutments with the inclusion of an all-ceramic crown (IPS e.max, Ivoclar Vivadent, Germany) (Fig. 10-11).

Treatment outcome

The clinical and radiological outcome was stable (Fig. 11-12). The patient was very pleased with both the restoration of aesthetics and the chewing function.

Conclusion

The primary stability of the implant is extremely important with a transgingival healing in terms of immediate loading. The success rate and survival rate is better for implants with good primary stability. Furthermore, the presence of a zone of keratinized soft tissue in the area of the implant is associated with a lower susceptibility to peri-implant disease. Ultimately, the close cooperation between dentist and dental technician is of utmost importance for a successful outcome. In conclusion, it can be said that the aesthetic and functional rehabilitation in the posterior region is predictable.



Fig. 1. Occlusal view



Fig. 2. Lateral view



Fig. 3. Radiologic view



Fig. 4. Model analysis



Fig. 5. Incision



Fig. 6. Implant preparation

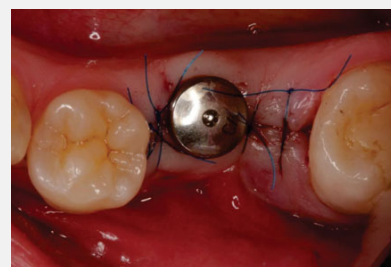


Fig. 7. Implant with transgingival healing



Fig. 8. Radiography postoperative

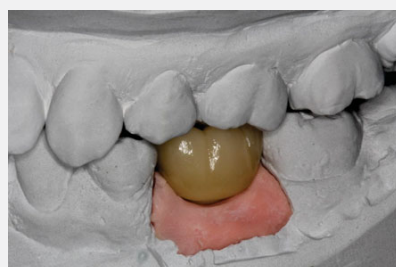


Fig. 9. Ceramic crown



Fig. 10. hybridabutment



Fig. 11. Ceramic crown in situ



Fig. 12. Radiography

Literature

1. Javed F., Romanos G.E.: The role of primary stability for successful immediate loading of dental implants. A literature review. J Dent. 2010 Aug;38:612-20. doi: 10.1016/j.jdent.2010.05.013. Epub 2010 Jun 11.
2. Romanos G.E.: Advanced Immediate Loading. Quintessence Publishing, 2012.
3. Ferreira C.F., Buttendorf A.R., de Souza J.G., Dalago H., Guenther S.F., Bianchini M.A.: Prevalence of Peri-implant Diseases: Analyses of Associated Factors. Eur J Prosthodont Restor Dent. 2015 Dec;23:199-206.

Contact

Dr. Erhan Aydin
ZZMK (Carolinum), J.W. Goethe-Universität Frankfurt am Main
Poliklinik für Zahnärztliche Chirurgie und Implantologie
Theodor-Stern-Kai 7, D-60596 Frankfurt am Main
E-Mail: Aydin@med.uni-frankfurt.de