"Low-profile attachments in implant prosthetics"

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"When the prosthetic project is crucial, from the very beginning, it's important to choose the right attachment"





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Introduction

With the increase of the elderly population, we notice a larger number of edentulous patients. The social life of these patients is also affected by the impairment of chewing, phonetics, and even aesthetics. The use of osseointegrated implants can successfully manage all these inconveniences, but sometimes the implant rehabilitations can have functional, aesthetic and reliability issues. These problems are present from the very preliminary stages, and the dentist and dental technicians, in order to eliminate them, have to make an accurate analysis of the prosthetic project, the vertical dimensions and the face

parameters. A large number of clinical studies emphasize the advantages of mandibular overdentures over implants. The choice of the attachment, between spherical and low-profile, is essential and cannot be accidental. Choosing an unsuitable attachment, in height and dimensions can create problems of stability and retention in several cases. In recent years, research and industry have introduced the low-profile attachments which, in many cases, are preferred to those spherical. There are many low-profile attachments, according to the space and the type of system that you are more confident with. The choice is up to you.

Discussion

The patient, nearly eighty years old, asked Dr. Gerardo Schiatti to redo a full upper prosthesis over implants. Given the reduced vertical dimension, and the willingness to insert a reinforcement in the prosthesis, several attachments are taken into account. After accurate evaluations the clinician decided to use four Ot Equator attachments, thanks to their less-bulky shape, in accordance with the vertical size and the space available in this patient. The positioning of the Ot Equator attachments also ensures the reduction of a negative angle during the insertion of the prosthesis. The clinician, after verifying that these



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attachments are the most appropriate for this case, proceeded with the taking of the first impression and then the construction of the impression tray for the master impression. After the laboratory processing, we obtain a master model, on which a recording of the centric and the vertical dimension allows us to proceed with to the assembly of the teeth layout. Once completed, we made, using silicone,

two small palatal and vestibular templates of this setting. For the implant in 2.4 area, we ordered a specific and slightly different Ot Equator attachment, due to the larger diameter of the implant connection. This eliminated all sort of potential issues. With the silicone templates, we determined the ranges between which we could build our prosthesis. The dental technician, considering

the available spaces, proceeded with the construction of the reinforcement with castable elements, also giving the right dimension to the baskets that will host the steel housings. After the casting and finishing, the structure is tested over the model. Once its adequacy was verified, we applied the opaque, set up the teeth, and we completed the prosthesis with the injection technique. After finishing, ۲



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the prosthesis is tried in the articulator, and then is sent to the doctor who, after a week of functional adaptation in the patient's mouth, checked for the perfect comfort and function.

Finally the prosthesis is polished and delivered to the patient.

Conclusions

The patient, in a six-month follow-up, continues to be extremely satisfied with her prosthesis, having had all her previous problems solved. We can conclude that, only after assessing the initial situation and making a

correct prosthetic project, we can choose the right attachment. Every low-profile attachment will have its own characteristics, and only a correct analysis of the patient and the clinical case can avoid errors.

About the author:

Carlo Borromeo was born in Seregno, Italy in 1965. In 1980, he started working as an apprentice. He finished his dental studies in 1983. In 1988, he set up Dental Laboratory Borromeo where he specialized in the manufacturing of prosthesis for implants, both with CAD CAM systems. Since then, he has actively collaborated with the Nobel Biocare Procera company, and currently with Dental Wings. Over the years he has had the opportunity to enter into agreements with several professional companies in the sector. Since 2002, Carlo has had an active collaboration with the company Ivoclair Vivadent as external collaborator for their dental alloys division. Carlo has taken part in a variety of courses and conferences, such as: Prosthetic restoration on implants course held by R. Polcan, Ceramic procedures power course held by Oliver Brix, Oral Design course in Sr. Willi Geller Laboratory, Practicaltheoretical course held by Sir Roberto Bonfiglioli in his laboratory in Bologna from 2004 to 2005. He's an Antlo-Teacher and has given numerous lectures. He is the author of many publications.

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