Teknik Not

"Lotus Carrier Plate" for Abutments and Healing Abutments in Multiple Implant Cases

Çoklu İmplant Vakalarında Abutment ve İyileşme Başlıkları İçin
"Lotus Taşıyıcı Tablası"

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Abstract
In multiple implant cases, impression caps, abutments and healing abutments should be carried in and out of mouth several times during prosthetic procedure. These pieces sometimes jumble-up during these impression and try-in sessions. This situation is annoying for the clinician. "Lotus Carrier Plate" has been designed to eliminate these problems and provide comfortable impression and try-in sessions for the clinicians.
Key Words: Healing Abutments, Abutments, Lotus Carrier Plate.

Özet
Çoklu implant vakalarının protetik tedavileri sırasında, ölçü parçaları, dayanaklar ve iyileşme başlıklarının ağızdaki yerlerine birkaç kez takılıp çıkartılması gerekmektedir. Bu parçalar bazen ölçü ve prova seansları sırasında karışmaktadır. Bu durum diş hekimleri için can sıkıcıdır. "Lotus Taşıyıcı Tabla" böyle problemleri elimine etmek, hekimlerin konforlu ölçü ve prova seansları geçirmelerine yardımcı olmak için tasarlanmıştır.
Anahtar Kelimeler: İyileşme Başlığı, İmplant Ölçü Parçaları, Lotus Taşıyıcı Tabla.

Introduction

Healing abutments are solid one-piece components, designed to provide optimal aesthetic results. These healings are used for soft tissue contouring during the soft-tissue healing phase and can be used for both one and two-stage surgery. The appropriate healing abutment should be selected in relation to the tooth position for the proposed implant according to the emergence profile. For aesthetic tissue support, the accurate healing should be placed so that the margin is sub -or equi- gingival. Some problems could occur during the impression, try-in and delivery sessions with multi-implant cases;

First of all, the difficulty of preventing the order of the healing abutments after the impression and try-in steps till placing back-in to their original places. Furthermore, the cleaning of the debris and bacterial plaque on the healings is also a compulsive procedure for the clinician.

Another problem is the difficulty of putting these healings in antiseptic solutions in their proper orders, before and after placing in to the oral cavity.

Abutments and healings usually aligned on the unit table according to the clinicians' individual systematic. However, they could jumble-up accidentally on the table. The clinician mostly could find the right places of the healings. But this is a time consuming and annoying procedure. Besides, sometimes the healings could be placed on wrong implants which cause a severe pain in the gingiva for the patient on that session and gingival recession occurs on the next session resulting with aesthetic problems. The usage of "Lotus carrier plate" would provide great advantages in terms of time and comfort for the clinicians.

Plate Desing

Carrier plate can be fabricated from either a sterilizable material or a disposable plastic. The advantages of the production of the plate from sterilizable material are to sterile the plate after each patient and use it many times. In this way, it's avoided from redundant medical waste. A sterilizable plate design should have smooth and polished surfaces in order to clean and sterilize the plate easily. The height of the prototype plate seen in Figure 1

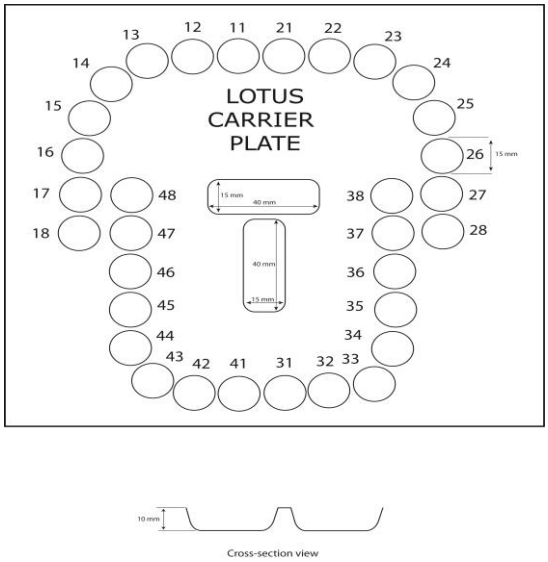

Figure 1. Schematically view of the plate and the cross-section view of the hollows

had been prepared as 15 mm. Two arches, each having 16 hollows (total 32) had been created on top of the plate simulating the maxilla and mandibula. The diameter of the hollows was prepared as 15 mm and the depth was 10 mm. The ground angles of the hollows were widely designed and were avoided from sharp base angles which would harden the cleaning procedures. Teeth numbers were written near the hollows according to the FDI system. These hollow arches were designed as open ends looking each other and interlocked in order not to be massive. Two holes (15x40x10 mm) were formed in the middle of the arches for the implant screwdrivers.

Enzymatic cleaning solutions or antiseptic solutions can be added into the hollows on request during usage (Figure 2).

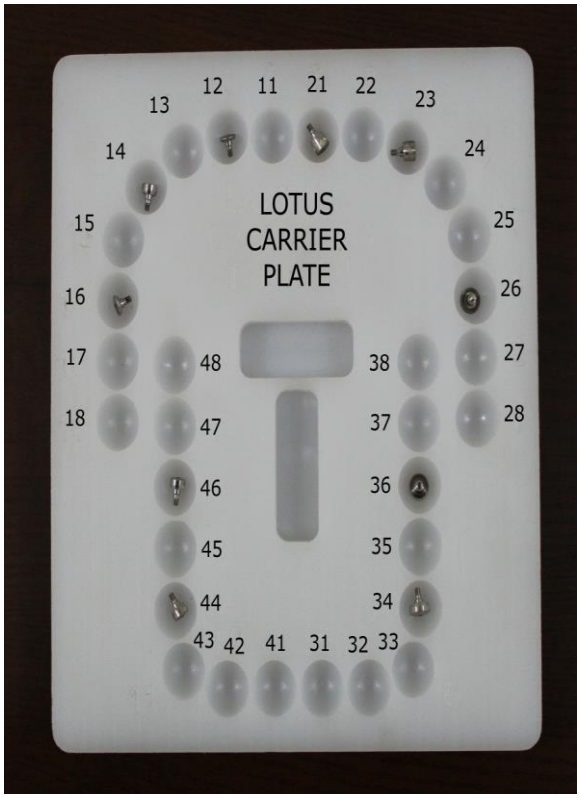

Figure 2. Photograph of the prototype plate

Discussions

Why 'Lotus'? The first name of the first author's name (Nilüfer) is translated to English as 'Lotus'.

The appropriate selection of the healings and abutments will allow the gingival tissues to heal around the restoration and to replicate the natural emergence profile, thereby providing an aesthetically pleasing prosthetic tooth replacement (1).

Healing abutments are available in different lengths and diameters and project through the soft tissue into the oral cavity (2). The disturbance of the considered healing abutments in the beginning could cause a severe pain and/or spoil the emergence profile of the abutment. This misplacement of the healing abutments can cause a gingival recession and the loss of aesthetics.

During the try-in steps, the healings should be fixed to their own place in order to provide comfort to the patient. However this procedure could be annoying with the multi-implant cases. 'Lotus Carrier Plate' is designed to prevent the problems arising from these kinds of complications and providing short and comfortable operations.

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