

Post surgery diet in the Columbus Bridge Protocol

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Abstract

Endosseous implants are really important in dentistry to correct maxillary edentulism, but in the international literature few information is provided regards the diet and the hygiene to be followed during the post-surgery in order to protect the osseointegration. The aim of this experimental work is to give a dietetic and hygienic protocol and to evaluate that with the patient's opinions and the operator's clinical evaluation.

Introduction

The Columbus Bridge Protocol [1] (C.B.P.) is an implant therapy used in dentistry to rehabilitate edentulous maxillae in a fast and effective way (immediate loading implants) [2]. The implant surgery is done in a few hours and after 2-3 days the implants are loaded with a temporary prosthesis which allows the mastication. An interdisciplinary approach between all the involved operators is necessary to achieve success. In order to protect the implants osseointegration [3, 4] from the chewing traumas (particularly in the first 8 weeks) [5] a specific diet is suggested to the patient. At first cold and soft food are recommended; the consistency will increase in the following weeks until the 2nd month when the diet will return normal. Chemotherapy will be used in the first period to increase the oral hygiene until the gum healing will consent the use of mechanical instruments (toothbrushes, dental floss). The aim of this clinic work is to define an experimental protocol about the alimentary regime and the hygiene during the healing period and to get information about the adaptation and the patient's comfort with the prosthesis.

Materials and Methods

TIME	Day 1-2	Day 3- 7/10	Week 2-3
THERAPY	Surgery. Healing abutments on the implants. Edentulous patient, with suture. Antibiotics and analgesics.	Fixed prosthesis delivery. Presence of suture, edema. Antibiotics and analgesics.	From suture removal to soft tissue healing. No drugs.
DIET	Liquid or semiliquid foods • 1 st day: cold • 2 nd day: at room temperature	Semisolid foods without seeds	Soft solid diet without seeds
ORAL HYGIENE	• No rinse • Periodontal gel • Plaque control on the antagonist arch	• Mouthwash (clx 0.2%) • Periodontal gel	• Mouthwash (clx 0.12%) • Periodontal gel • Brushing with soft bristles

Figure 1. The hygienic-alimentary protocol until the 3rd week

TIME	From the 3rd to the 8th week	From the 8th week on
THERAPY	From soft tissue healing to bone healing (immature bone)	Bone healing (osseointegration)
DIET	Solid diet (limitations in food consistency and way of consumption)	Normal diet
ORAL HYGIENE	Toothbrush with soft/medium bristles + spongy dental floss + interdental brush + mouthwash without clx	Toothbrush with medium bristles + spongy dental floss + interdental brush + mouthwash without clx

Figure 2. The hygienic-alimentary protocol from the 3rd week to the 8th week

30 edentulous patients rehabilitate with the C.B.P. in the department of fixed and implant prosthodontics were involved in this study. An experimental hygienic-alimentary protocol created with the support of school of dietology of the University of Genoa (Figs. 1, 2) was given to the patients. A questionnaire was compiled by patients and a clinical form from operators.

Opinions and sensations about the diet, the hygiene, the healing process and the quality of the prosthesis were recorded from the patients.

The five-point Likert scale [6] (a bipolar scaling method measuring either positive or negative response to a statement) was used. The scoring was: 1 Strongly disagree, 2 Disagree, 3 Neither agree nor disagree, 4 Agree, 5 Strongly agree. The plaque index (PI) and evaluations about the prosthesis were marked from the operator.

Results

All patients appreciated the new prosthesis, while the mastication was considered satisfactory from the 86%. Difficulties during hygiene procedures were marked from 1 patient. The PI increased as the healing process improved but mechanical instruments, and not only chemotherapy, were necessary to obtain a correct dental hygiene.

Discussion

The C.B.P. results a valid implant approach to edentulous maxillae. The clinical evaluation (healing phase, mastication,

esthetic, dental hygiene) and patient's answers show the adequacy of the experimental protocol. The synergism between dentist and dental hygienist is really important to obtain the patient's compliance and indispensable to achieve the complete success.

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