M. Helmizadeh RISK FACTORS OF PERI-IMPLANT MUCOSITIS AND ITS PREVENTION

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Resume. The article presents the data on the main risk factors leading to peri-implant mucositis. Periodontal maintenance protocol together with the improvement of oral hygiene play a key role in plaque-induced mucositis prevention. The informative brochure about oral hygiene in the area of dental implants was developed for patients with peri-implant mucositis.

Keywords: peri-implant mucositis.

Introduction. Nowadays dental endosseous implant is a widely recognized treatment option for replacing missing teeth. Dental implants have been reported to achieve long-term success in many clinical cases. However, 50% of patients experience some level of complications and peri-implant mucositis is a frequent finding. Peri-implant mucositis is a condition characterized by the inflammation of soft tissue around a dental implant. It is an early form of peri-implant disease that has not progressed to the point of tissue or bone loss at the implant site [1, 2].

Generally, peri-implant mucositis is a precursor to peri-implantitis. The management of peri-implant mucositis is considered as a preventive measure for the onset of peri-implantitis. Therefore, the remit of this working was to assess the prevalence of peri-implant diseases, as well as risks for peri-implant mucositis and to evaluate measures for the management of peri-implant mucositis. Evidence suggests that peri-implant mucositis may be successfully treated and is reversible if caught early [3].

Aim. The aim of the current research was to determine the main risk factors leading to peri-implant mucositis and to develop guidelines on its prevention.

Goals:

- 1. To conduct a patient examination with peri-implant mucositis.
- 2. To determine the main risk factors leading to peri-implant mucositis.
- 3. To develop guidelines on peri-implant mucositis prevention.

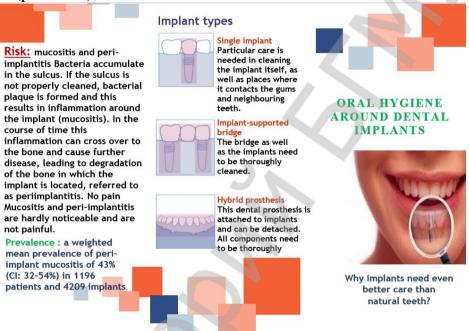
Objects and methods. The objects of the research were 20 patients aged 35–44 years with peri-implant mucositis. The questionnaire comprised questions on medical and dental history, home care and oral hygiene skills. Recall peri-implant examination included OHI-S (Green, Vermillion, 1964), GI (Loe, Silness, 1963), bleeding on probing (BoP+%) and mucosal recession (mm). Clinical parameters were assessed at four surfaces (mesial, buccal, distal and lingual) of each implant. The obtained results were documented in special charts.

Results and discussion. The main factors leading to peri-implant mucositis are poor oral hygiene (98%), history of periodontitis (74%), uncontrolled diabetes mellitus (27%), smoking (79%), genetic profile (63%), and improper posttreatment maintenance therapy (96%). We have explored that bruxism (43%) and occlusal overload (57%) lead to inflammation around the implant surface. Nevertheless, the iatrogenic factors include non-parallel adjacent implants (35%), the presence of gap between the fixture and prosthetic components (54%), as well as the presence of residual cement (36%) subgingivally.

Why implants need even better care than natural teeth?

The informative brochure *«ORAL HYGIENE AROUND DENTAL IMPLANTS»* contains the following data:

1. Risk. mucositis and peri-implantitis bacteria accumulate in the sulcus. If the sulcus is not properly cleaned, bacterial plaque is formed and this results in inflammation around the implant (mucositis). In the course of time this inflammation can cross over to the bone and cause further disease, leading to degradation of the bone in which the implant is located, referred to as peri-implantitis. No pain Mucositis and peri-implantitis are hardly noticeable and are not painful (picture 1).



Picture 1 – Informative brochure «ORAL HYGIENE AROUND DENTAL IMPLANTS» (the 1st page)

2. *Prevalence*. a weighted mean prevalence of peri-implant mucositis is 43% (CI: 32–54%) in 1196 patients and 4209 implants.

3. Implant types.

Single implant Particular care is needed in cleaning the implant itself, as well as places where it contacts the gums and neighboring teeth.

Implant-supported bridge. The bridge as well as the implants need to be thoroughly cleaned.

Hybrid prosthesis. This dental prosthesis is attached to implants and can be detached. *Recommendations for Dental Professionals*

- When implant treatment is considered, patients should be informed on the risks for biological complications (peri-implant diseases) and the need for preventive care.
- Clinicians have to be aware that implant placement at a submucosal level (to hide crown margins) may carry a higher risk for peri-implant diseases.
- An individual risk assessment including systemic and local risk indicators should be performed and modifiable risk factors, such as residual increased probing pocket depth in the remaining dentition or smoking, should be eliminated. treatment of periodontal disease for elimination of pockets with bleeding on probing and smoking should precede implant placement.

Immediately after placement the gums are very sensitive after dental surgery. Patient's must use the right tools to help keep the teeth and implant clean and healthy, and assist your gums to recover (picture 2).



Picture 2 – Informative brochure «ORAL HYGIENE AROUND DENTAL IMPLANTS» (the 2nd page)

The tools for care

- Toothbrush
- Denture brush
- Interdental brushes
- Textured floss, Dental floss
- Single-tuft brush
- Chlorhexidine rinses and toothpastes

Conclusions. Periodontal maintenance protocol together with the improvement of oral hygiene play a key role in plaque-induced mucositis prevention. The informative brochure about oral hygiene in the area of dental implants was developed for patients with peri-implant mucositis.

Literature

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