

LONGEVITY TREATMENT BY BRIDGES: CLINICAL AND BIOLOGICAL AND TECHNICAL CONDITIONS

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Cuvinte cheie: condiții clinico-biologice, condiții tehnico-biologice, longevitatea tratamentului

Abstract: The many clinical forms of partial edentulous do not allow the development of a unique type of treatment scheme; the treatment should be individualized, taking into account the general principles (biofunctional, biomechanical and prophylactic) as a whole. The longevity of prosthetic treatment success depends on restoring the affected functions and the extension of the health of oro-dental structures. Knowledge, identification, removal and prevention of pathological factors involved in prosthetic treatment contribute to achieving and maintaining the successful of the therapy with bridges.

Rezumat: Multitudinea formelor clinice de edentație parțială nu permit elaborarea unei scheme tip de tratament, tratamentul trebuie să fie individualizat, ținându-se cont de principiile generale (biofuncțional, biomecanic și profilactic) în mod unitar. Longevitatea tratamentului protetic depinde de succesul refacerii funcțiilor afectate și prelungirea stării de sănătate a structurilor oro-dentare. Cunoașterea, identificarea, înlăturarea sau prevenirea factorilor patologici implicați în tratamentul protetic contribuie la obținerea și menținerea succesului terapeutic prin punți dentare.

INTRODUCTION

On the line of the prophylactic imperatives, the prosthetic restorations must restore morphological and functional the integrity of dento-alveolar arches and to integrate in the systemic context with the maxillary dental appliance, within the meaning of interrelations between elements. Restoration of each element must be carried out without to prejudice the morphology and functional requirements of other components.

The therapist must establish a correct diagnosis on the basis of investigations (clinical, laboratory) and perform a prophylactic, curative and individualized treatment. The complexity and individualization of clinical cases, of the interrelationships between stomatognathic system elements, of the means of investigation and numerous therapeutic procedures (development of new materials and technologies), present significant risks at all stages of clinical and technical prosthetic restoration.

MATERIAL AND METHOD

The analysis of the correlative mechanisms with graphical representation of the conditions involved in the longevity the prosthetic treatment using literature data and clinical and technical retrospective observations of medical practice .

RESULTS

The clinical, biological and technical conditions involved in the longevity of prosthetic treatment is not working alone but there is a relationship, with mutual influence as shown in Fig.1. and Fig.2.

DISCUSSIONS

The dento-periodontal support represented by the pillar teeth and adjacent periodontal defines the longevity of the

bridge treatment expressed by preserving pillars teeth and their periodontal. In consequence the evaluation of dento-periodontal support by the physician should be based on several criteria:

1. Tooth vitality poles. Vital teeth are preferred due to physical coronary resistance tissues and exclusion of the threat to form apical process. Tooth sensitivity is a vital sign that can occur when prosthetic restoration is not cervical adapted or in the cases of occlusal mechanical shocks (1).
2. The amount of support by setting a resistance value of each tooth to periodontal applications masticatory (Leriche, Agapov, Duchange) and determination of substrate surface depending on the values of periodontal (Tylmann) (2).
3. Tropicity of the marginal periodontium, evidenced by dental migrations, retractions, bags, interventions and response to the periodontal previous dentures.
4. Morphology of teeth:
 - coronary morphology - if the crown is extended will result in greater support and friction, root morphology - the number and direction of the roots.
5. The topography of the tooth in the arch - the more distal is the more importance has when is under pressure.
6. Extent and topography of edentulous allow us to see applications that were subjected the teeth before the edentulous.
7. Direction of implantation of teeth and dental occlusion. Functionalists claim that for a healthy periodontium is necessary to assure the kind ento-dental contacts which provide the forces in the long axis of the tooth. This is dependent on the orientation of the occlusal face of the tooth according antagonists, occlusal relief to achieve individual and in harmony with the occlusion curves (3).
8. Implantation of tooth (the ratio between clinical crown and clinical root). Functional tooth is considered balanced when the intraalveolar arm is greater than the extraalveolar (optimal ratio 3:2). By the periodontium retraction increases the clinical crown and decreases the root crown clinical, clinical disadvantage from

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CLINICAL ASPECTS

the prosthesis perspective. Report 1 / 1 is the minimum acceptable value for a future column tooth in normal conditions (4).

Figure no. 1. Longevity treatment by bridges: Clinical and Biological Conditions

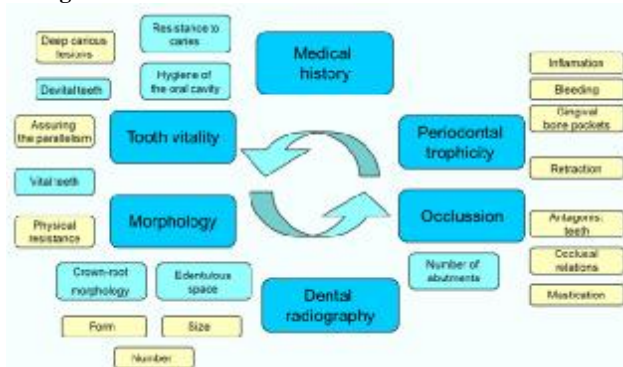
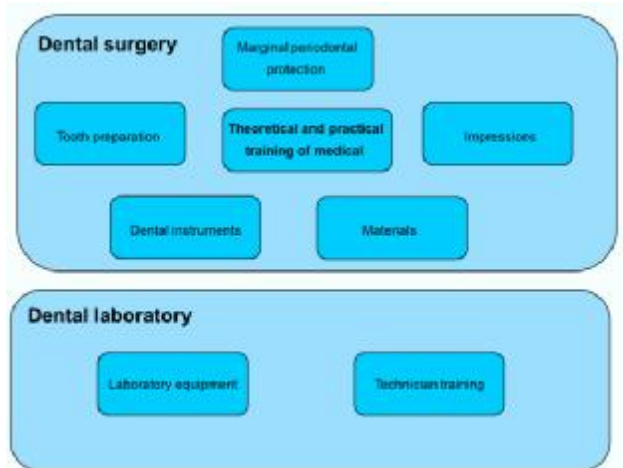


Figure no. 2. Longevity treatment by bridges: Biological and Technical Conditions



9. The periodontal reactivity expresses the power of response of the periodontium to the mechanical solicitations to which it is subjected.

Clinical is monitored the periodontal status – the evidence of periodontal lesions: migration, shrinkage, bags, mobility. History can be detected also and some interventions made at the level of periodontium. The most important criterion is the radiological one which permits us to assess and observe:

- the periodontal area (number, size and direction of the root);
- the real values of implantation;
- the presence of bone bags;
- the size of the periodontal space, the periodontal space widening;
- the thickness, continuity or discontinuity of internal lamina,
- the presence of pathological processes in the apex (apical granuloma), the presence of neighborhood formation (sinus);
- the indicators that betray the presence of occlusal trauma: thickening in the apical third of root, root resorption, bone resorption (5).

10. Request occlusion of future bridges depends on:

- the antagonists (integral or artificial arch (bridge) when the stress is higher than that of a movable prosthesis)
- dental -dental guide the mandibular.

11. Other factors involved:

- professionals (professions that require more a certain group of teeth);
- sex, occupation are correlated with occlusion pressure;
- nutritive habits (hard foods overburden periodontal teeth);
- age (at young to avoid the sacrifice of hard tissues are realized invalid medial extensions and at the elderly distal extension to prevent prosthesis mobilization);
- oral hygiene (periodontal involutions if precarious);
- periodontal tooth arch (immobilization periodontal tooth with dental bridges) (5).

Clinical and technical conditions: the professionalism of the doctor and the technician, equipped with appliances, materials needed, are important factors in terms of complexity type of dental bridge.

In fixed prosthetic the precise preparation of teeth and a precise footprint are key factors for success:

- when improper grinding of teeth (abutments very conical, reduced in size) can occur the following complications: pulp body mortification, fractured teeth and denture detachment (6).
- periodontal lesions during tooth preparation, followed by the impression in the same meeting is a cause of marginally unadapted (7), at this is added the nonusage of the methods for the eviction of the gingival groove (4).

In the dental laboratory there are many factors related to biological conditions (manual, visual sense), professionalism and materials and technical equipment.

CONCLUSIONS

The succes of the prosthetic treatment through dental plans is the result of a medical rationament based on clinico-biological elements and tehnico-materials.

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