Clinical Uses of Clasp Mobilized Prosthetic in Agreement with Different Types of Edentulous

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The treatment of partially extensive edentulous involves the application of some artificial substitutes in the oral cavity of the patient in order to restore the continuity of morphological dental alveolar arches and the stomatognathic system functions disrupted by edentulous. By this study we carried out to individualize the choice of different types of special systems within prosthetics hybrid in full agreement with clinical and biological hints, characterizing the muco-bone support parameters that influence therapeutic options, identifying and applying treatment solutions ranked according to the particularities of each and every clinical case. Within a wide lot of patients, a group of 11 patients - 7 women and 4 men were selected, coming at a rate of 54.55% from urban area and 45.45% from rural areas, which they were examined and treated for two years (2014-2016), discipline and therapy Clinic in the Clinical Base Education within Medical Dental Faculty of Dental Medicine - Pharmacy Gr. T. Popa Iasi. Clinical and biological indices related to the dental periodontal and muco-bone support may suggest certain elements for the doctor-prosthetic solutions, connector type but also special items to maintain, support and stabilize - which may or may not be applied to the case. The therapeutic solution chosen is notably influenced of biomechanical aspects in conjunction with morphological support, the vital part of a comprehensive treatment without circumventing peculiarities generated by edentulous topography.

Keywords: removable prostheses, attachments, clasps, tissue, biomaterials

Contemporary dentistry is focused on investigating the man as a whole, as a totality in which each component is equally important and closely related to the others[1,2]. Edentulous, with all its forms, is unquestionably an urgent response on the whole stomatognathic system with the possibility of inducing dishomeostasy initially intrasystemic and then supersystemic[3,4]. The treatment of partially extensive edentulous involves the application of some artificial substitutes in the oral cavity of the patient in order to restore the continuity of morphological dental alveolar arches and the stomatognathic system functions disrupted by edentulous[5,6]. The tolerance of the elements composing the stomatognath system in contact with dentures is a complex challenge[7,8].

From the final skeletal prosthesis category, one may distinguish by complexity, balance and biomechanically optimal esthetic results, the prosthetic hybrids that use special maintenance systems, for support and stabilization in full agreement with the particular clinical case[9,10].

From a clinical and technological perspective different prosthetic skeleton types are characterized by the wide range of clinical situations solvable with these types of restorations. Skeleton dentures, by the possibility of their construction are prosthetic resistant substitutes, with static and dynamic balancing efficiency and, most important, with the ability to physiologically transfer to the oral biological structures a large amount of request forces through the remaining teeth included in the perimeter of the prosthesis[11,12].

In most cases, biomechanical and aesthetic qualities of the hybrid prosthesis lead to clinical positive assessment of the patient. Once out of detention to removable prosthesis, prosthetic deployable hybrid materializes in a comfortable treatment option, due to its volume streamlined yield satisfactory functional and has the ability to dissipate the prosthetic field[13,14].

Ensuring the patient’s comfort, the increasing operational efficiency, while complying with principles - biological, biomechanical and profilactic - in removable prosthesis, led to the existence of new therapeutic solutions, the important role meaning they have special maintenance, support and stabilization, through their diversity[15,16].

In this context, compared to conventional prosthesis, the optimal hybrid prosthetics stand, the aesthetic and functionality making special items of maintenance, support and stabilization systems able to respond to the real challenges of the various clinical situations[17].

Experimental part

By this study we carried out to individualize the choice of different types of special systems within prosthetics hybrid in full agreement with clinical and biological hints, characterizing the muco-bone support parameters that influence therapeutic options, identifying and applying treatment solutions ranked according to the particularities of each and every clinical case. Within a wide lot of patients, a group of 11 patients - 7 women and 4 men were selected, coming at a rate of 54.55% from urban area and 45.45% from rural areas, which they were examined and treated for two years (2014-2016), discipline and therapy Clinic in the Clinical Base Education within Medical Dental Faculty of Dental Medicine - Pharmacy Gr. T. Popa Iasi. All patients diagnosed with partially edentulous, subtotal or total etiology varied and had different complications in the absence of effective therapies or even due to an improper prosthetic. The prosthesis were evaluated regarding the therapeutic decisions on building design that uses different prosthetic systems for maintenance, support and stabilization, various forms of main connector in agreement with clinical and biological signs, directions of travel of dentures and especially the biological impact at the tissue level.
Results and discussions
Clinical and biological indices related to the dental periodontal and mucogingival support may suggest certain elements for the doctor-prosthetic solutions, connector type but also special items to maintain, support and stabilize - which may or may not be applied to the case.

For the dental periodontal support, clinical and biological indices influence decisively the positive therapeutic choice for mobilized hybrid solution: the presence of a large number of teeth per arch, grouped distribution units containing odonto-parodontal, forming a compact group which preserves papilla, periodont, bone, their topography on the arch, normal implantation, healthy periodontal support.

Special systems maintenance, support and stabilization are indicated in the following situations:
- the support teeth have a good implantation, dental crowns are sufficiently large in vestibular-oral direction and mesial-distal, to prevent mobility, they join by a dental prostheses.
- Some negative clinical and biological signs, such as coronary odontal lesions, extrusions, unevenness of the occlusal plane, but on the other hand the healthy periodontal asks for a composite prosthesis.
- There is a wide variety of attachments that vary in shape, size and architecture. It is generally best to avoid placing extracoronarian support systems on poles upright teeth. If possible, you must choose the lowest-keeping system that minimizes adverse effects on coronal contour. The patient must be convinced of the importance of good oral hygiene condition and have frequently recalled to reimpose hygiene procedures and to promptly intervene when they occur pathological lesions.
- It is a well-known fact that the resilient support systems should be avoided whenever possible; they rarely operate in the manner for which they were designed, they are inevitably extracoronarian and are typically complex, requiring an appropriate technique.
- Non-resilient support systems can be very difficult, using friction retention and should only be used on teeth pole. This retention friction is often very high at first, but gets lost or reduced substantially in a short period of time. This causes excessive maintenance again, requiring several sessions adjustment, sometimes resulting in failure to obtain the desired level of retention.
- Maintenance systems are simply simple replacement of traditional aesthetics of hooks. Thus, clinicians should consider keeping each system before use.
- We detailed some representative cases for each particular system and for clinical situations that were the basis of combining elements of maintenance, support and stabilization. We had in mind the studied problems.

Aspects of modern prosthodontics using different types of attachments
Following the clinical and laboratory exams and the study of the model we issued the following diagnosis:
- edentation partially maxillary Class I Kennedy 1 update, with etiology caries and periodontal disorders in functional chewing, phonetic, swallowing physiognomy, slowly evolving with local complications (bone resorption), loco-regional (dysfunction ATM), prognosis through favorable treatment, untreated.
- edentation partially mandibular Class I Kennedy 1 update, subclass C Lejoyeux, with etiology caries and periodontal disorders of functional chewing, phonetic, swallowing physiognomy, slowly evolving with local complications (bone resorption), loco-regional (dysfunction ATM), favorable prognosis with treatment, untreated.

Clinical and biological indications are locally characterized by alternating positive and negative aspects, the negative aspects are related to joint dysfunction, natural consequence of edentulous state and local complications thereof, represented by the horizontal and vertical migrations. The positive aspects are represented by a state of a normal tonicity at the level of the manducatory muscles of the jaw.

As for the clinical-biological local level clues, the odontal periodontal stands for negative aspects prevalent mandibular, generated a degree of mobility grade 1 present at the front, the positive aspects characterize both distribution of the remaining elements as well as the degree of implantation. These aspects that will stand for a therapeutic decision will be used as maintenance therapy elements, special support and stabilization systems (fig.1).

After investigating and analyzing the treatment plan in accordance with the principles and criteria mentioned, we choose the following therapeutic solution at maxillary level: restoration fixed metal-ceramic 17, 14-23, removable partially skeletal prostheses, 2 saddles mixed metal-acrylic, 9 acrylic teeth, topping main palate connector, EMSS - attachments

A fixed restoration in jaw put together all the outstanding elements. This special distribution systems provide a very good balance of the biomechanical forces and a uniform distribution (fig. 2).

Post prosthesis treatment: primary adaptation in a week; secondary adaptation after one month; tertiary adaptation every 6 months.

Aspects of the use of special systems and clasps dictated by clinical situation
It is known that we recommend using the same system for maintenance, support and stabilization. So, in the woman - patient with partially extended maxillary edentation, Kennedy 1 class changed, etiology with cavity and periodontal disorders in the masticatory function, phonetics, swallowing physiognomy, sluggishness with local complications (bone resorption), loco-regional (dysfunction ATM), favorable prognosis with treatment,
untreated joint venture that brought together both special systems as well a clasp was dictated by the particular clinical case and the need to ensure an optimal biomechanical balance.

Thus there were applied to the sagittal attachments at the level of the fixed restoration at levels 13 and 23 and one Ackers clasp at 27 in order to avoid the extra use of the isolated molar (fig. 3,4).

Another clinical case representative of issues addressed is the edentulous total jaw, Class I Sangiolo etiology caries and periodontal disorders in functional chewing, phonetic, swallowing physiognomy, slowly evolving with local complications (bone resorption), loco-regional (ATM dysfunction), favorable prognosis with treatment, untreated, and partially edentulous Kennedy grade 1 etiology cavity and periodontal disorders in masticatory function, phonetics, swallowing physiognomy, slowly evolving with local complications (bone resorption), loco-regional (ATM dysfunction) treatment favorable prognosis, untreated.

Choosing supraprosthetic with 6 occlusal staples consisting from a biomechanical point of view a much better choice than the version of restoration by IOS sites and reconstitution fixed in agreement with clinical biological hints, characterizing elements of odont periodontal remainings compatible with an advanced degree of coronar destruction and a low mobility (fig.5).

Due to the increasing intra alveolar knife, this therapeutic solution offers stability over time (fig.6,7).

Hybrid prosthesis is an elegant and efficient alternative to removable prosthetics, dental aesthetics influences facial somatosensory in the context of progress made in this regard in recent decades, in conjunction with patient’s demands offering a different approach to this aspect of gnathoprotetic therapy.

The variety of clinical cases the dentist encounters constitutes a particularly important challenge in choosing the peculiarities of developing hybrid prosthesis, given the extremely wide offer special systems for maintenance, support and stabilization.

The complexity lies indisputably in the hybrid therapy with interdisciplinary issues the algorithm drafting gets when using these types of prosthesis. The clinical toothless and stretching form could suggest the type of prosthesis and special items of maintenance, support and appropriate stabilization in the composite prosthetics. Generally toothless class I and II with modifications and grades III and IV stretched suggests a mixed but mostly composite prosthesis.

Conclusions

The loco-regional issues and clinico-biological periodontal clues, muco-bony prosthetic construction and final design dictate the choice of maintenance, support and stabilization.

The superiority of special systems finds echoes in a biomechanical and aesthetic plan that overcome deficiencies of the classic prosthetics, both aspects dictated by the particular prosthetic field.

The therapeutic decision is a final outcome of clinical and laboratory evaluation, including therapy-induced complexity of general condition, something that often has a decisive focus.

The therapeutic solution chosen is notably influenced of biomechanical aspects in conjunction with morphological support, the vital part of a comprehensive treatment without circumventing peculiarities generated by edentulous topography.

References


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