

CLINICAL ASPECTS OF THERAPEUTICAL SOLUTIONS INVOLVED IN ORAL REHABILITATION OF PARTIALLY EDENTULOUS PATIENTS

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This study aims at identifying practical ways of approaching social cases, and creating a hierarchy of the final functions of restoration. In 2008 the Clinical Base for Learning from the Faculty of Dental Medicine, Iasi, recorded for the Partially Stretched Edentation Clinic and Therapy course a prevalence of biterminal partial edentation (Class I Kennedy)-66.39 per cent from the total number of patients, followed by uniterminal edentation (Class II Kennedy), having 40.24 per cent of the clinical cases, whereas INTERCALATE edentation (Class III Kennedy) , frontal edentation (Class IV Kennedy), and subtotal edentation have about 20.12.1 per cent each. The clinical form of edentation contributes to the election of a proper therapeutic solution as well as the odonto-parodontal and muco-osseous status of each clinical case, the patient’s general condition or the socio economic and technical factors leading to a modern, classical or social prosthesis. An important aspect to be taken into account is the large percentage of 41.61.2/ social cases diagnosed with partially edentation, pleading for provisional prostheses with an established role in therapy, which sometimes may become social prosthesis – an outstanding clinical reality. Social cases should be solved with a view to restoring functionality such as lower level redimensioning and cranio-mandibular repositioning, whereas aesthetic requirements fall into therapies based on metallo-ceramic and hybrid prosthesis or implanto-prosthetic therapy

Key words: Social cases; Functional aspects; Removable prosthesis; Biomaterials.

INTRODUCTION

The various forms of edentation create a complex clinical entity with a deep impact on the stomatognathic system and its balance. They also affect to a great extent the patient’s insertion in a society ruled by aesthetic exigencies.

Edentation occurrence as an oral pathology diagnosis varies from one country to another, from one time interval to another, according to the level of civilization, health policies, the place held by prophylaxis as well as the patient’s own perspective and culture.

This study aims at identifying practical ways of approaching social cases, and creating a hierarchy of the final functions of restoration.

MATERIAL AND METHOD

In 2008 the Clinical Base for Learning from the Faculty of Dental Medicine, Iasi, recorded for the Partially Stretched Edentation Clinic and Therapy course a prevalence of biterminal partial edentation (Class I Kennedy) – 39.8 per cent from the total number of patients, followed by uniterminal edentation (Class II Kennedy), having 24.1 per cent of the clinical cases, whereas INTERCALATE edentation (Class III Kennedy), frontal edentation (Class IV Kennedy), and subtotal edentation have about 12.0 per cent each (Fig. 1).

The clinical form of edentation contributes to the election of a proper therapeutic solution as well as the odonto-parodontal and muco-osseous status of each clinical case, the patient’s general condition or the socio economic and technical factors leading to a modern, classical or social prosthesis.

An important aspect to take into account is the large percentage of 61.2 social cases diagnosed with partially edentation, pleading for provisional prostheses with an established role in therapy, which sometimes may become social prosthesis – an outstanding clinical reality (Fig. 2).

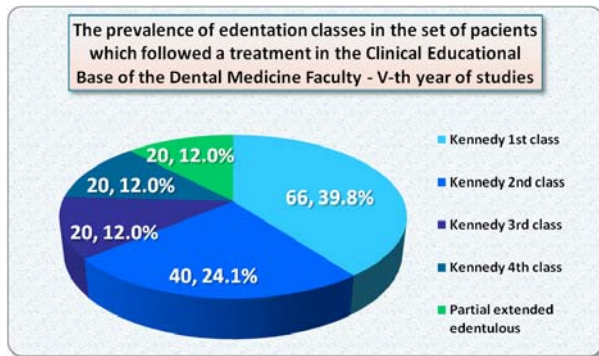


Fig. 1. The distribution of the studied group according to the edentation class.

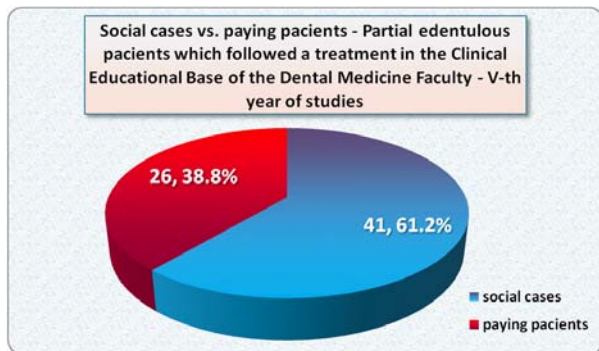


Fig. 2. Social cases vs tax payers-patients with partially stretched edentation treated at the Clinical Base of the Dental Medicine Faculty-the 5th year of study.

RESULTS AND DISCUSSIONS

The selected therapeutic solutions for partially stretched edentation included social therapy using mobile modern prosthesis due to morpho-functional particularities, amovable prosthesis based on attachments that provide comfort to the patient while 14.9 combined modern methods for one maxillary and acrylic prosthesis for the other-used either temporarily or for social reasons until the achievement of prosthetic field specific rehabilitation at that level-followed by a therapeutic

solution based on modern biomaterials and technologies (Fig. 3).

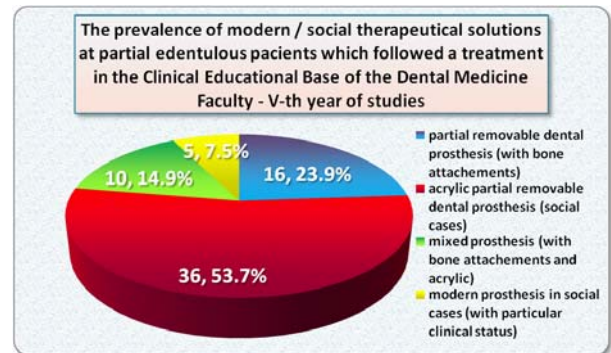


Fig. 3. Social vs modern therapeutic solutions for patients with partially edentation treated at the Clinical Base of the Faculty of Dental Medicine, the 5th year of study.

As clinical entity, the partially edentation is to be found most frequently after the age of 45, according to epidemiological studies. The statistic data describing the general status of the patients in our group of study came to support this idea. Partially stretched and subtotal edentation was most frequent at patients between 55-64 years with a prevalence at female patients (Iasi, 2008) – Fig. 4.

CLINICAL ASPECTS

The loco-regional indices include negative aspects at TMJ level such as mandibular dynamics characterized by asymmetrical condillian excursion sand left laterodeviation. The local odonto-parodontal clinico-biological indices include a small number of odonto-parodontal units, reduced coronary volume shown by the lower layer subdimensioning and strong generalized abrasion. The periodontal index involves periodontal recession and the clinico-biological radiological index suggests the presence of horizontal loss of substance and 1st degree dental mobility.



Fig. 4. A female patient aged 49 with maxillary and mandibular biterminal edentation (Class I Kennedy) is representative.

The muco-osseous support presents resilient mucous membrane, and uneven ridges-negative indices approached by means of specific preparation or the use of biomaterials adaptable to such particularities.

Negative aspects of occlusion include a change of the static occlusion parameters due to coronary erosion stretched to the existing odonto-parodontal elements and modifications of the dynamic occlusion trajectory both to be taken into account during to provisional prothesing in order to rehabilitate such clinical case. This provisional therapeutic solution, given a proper therapeutic plan and favorable socio-economic criteria should precede the elected implanto-prosthetic rehabilitation of the prosthetic field occurring after a proper preimplantary preparation (augmentation and sinus lift) (Fig. 5).

Another illustrative case is female patient V, M, 62, diagnosed with maxillary and mandibular edentation Class II Kennedy. The negative muco-osseous and odonto-parodontal indices led to a flexible therapeutic solution, considering the postpoliomyelitis sequellae that influenced handling (Fig. 6).

After the stages of complex oral rehabilitation the odonto-parodontal clinico-biological indices were optimized and the final therapeutic solution combined fixed prosthesis and flexible maxillary and flexible mandibular prosthesis following the odontotherapeutic treatment restoring odontal structure integrity. This type of prothesing has spectacular results in restoring facial integrity if aging is not involved.



Fig. 5. Final therapeutically solution.



Fig. 6. Aspects of clinical case before treatment.

The gnato-prosthetic therapy cannot recover certain aspects at the facial level. The wrinkles and folds partially disappear, whereas the nasal cloazon fall and the jaw close position to the nose cannot be reduced as presented at the second clinical case (Fig. 7).

Aesthetic recovery may become art, considering that non aesthetic prosthesis disfigures the patient affecting his/her life and behavior, leading to inferiority complexes. Total or partially removable prosthesis should restore the patient's natural appearance.

This case presents sequellae of maxillo-palatine split. Unfortunately surgery did not provide a favorable prosthetic field and ortognate surgery could not be used. We selected scaffold prosthesis

with special elements as therapeutic solution. The uneven elements at the mandibular level created problems for restoring occlusive rapports (Fig. 8).

The model analysis showed a modified palatal vault and dull relief which led to canine amputation in order to restore the maxillary configuration, cranio-mandibullary and upper lip repositioning (Fig. 9).

The microstomy aspects provided some particular aspects of therapy, the upper labial scar presence increasing the approach difficulty. The model for diagnosis was an important stage in creating the prosthesis with respect to the lower level redimensioning, upper lip support configuration and occlusive rapport restoring (Fig. 10).



Fig. 7. Aspects of clinical case after treatment.



Fig. 8. Aspects of clinical case before treatment.



Fig. 9. The casts.



Fig. 10. Aspects of stage of treatment.

Scaffold/skeletal prosthesis used special means of holding, support and stabilization at the canine level. The canines were amputated and covered by corono-radicular devices repositioning the upper lip and restoring the dento-stomato-facial balance (Fig. 11).

There should be taken into account therapeutic solutions, the clinical case particularities as well as socio-economical criteria in taking a proper decision (Fig. 12).

Although the last two patients were social cases the clinical case particularity imposed the solutions.



Fig. 11. The wax-up aspects.



Fig. 12. Aspects of clinical case after treatment.

CONCLUSIONS

Social cases should be solved with a view to restoring functionality such as lower level redimensioning and cranio-mandibular repositioning, whereas aesthetic requirements fall into therapies based on metallo-ceramic and hybrid prosthesis or implanto-prosthetic therapy.

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