

## **THERAPEUTICAL ASPECTS IN CONVENTIONAL REMOVABLE TREATMENT**

***Assist.Dr. Dan Nicolae Bosinceanu***

***Prof.Dr. Norina Consuela Forna,***

***Assist. Dr. Dana Bosinceanu***

UMF „Gr.T.Popă” Iasi,Romania, Faculty of Dentistry

---

### **Abstract**

Conventional dentures represent the most common prosthetic solution for edentulousness, therefore they should reestablish all functions of masticatory system considering the changes caused by the age and edentation. This paper aims to assess every possibility to reconstruct the edentulous arches in order to recover all functions, the study being conducted on a group of 46 patients, adopting an individualised treatment plan for each other.

---

**Keywords:** Edentous patients, removable dentures, denture wearers

### **Introduction**

Reconstructing the edentulous arches is a very serious issue for the elderly patient because of the difficulties that may occur during the process of making the dentures, reestablishing the vertical dimension, recovering the facial aspect modified with age, cleaning and maintaining the dentures, all problems due to the third age.

### **Material and Method**

The study was conducted on a group of 46 patients, 19 men and 27 women, with complete or subtotal edentation, denture wearers or not, with ages over 60 years old, average age being 70,3.

AGE	MEN	%	WOMEN	%
<b>60 – 70</b>	<b>6</b>	<b>31,57</b>	<b>14</b>	<b>51,85</b>
<b>71 – 80</b>	<b>9</b>	<b>47,36</b>	<b>8</b>	<b>29,62</b>
<b>&gt;81</b>	<b>4</b>	<b>21,05</b>	<b>5</b>	<b>19,61</b>

Tabel I:Distribution of patients by age and sex

Each patient was thoroughly examined and everything was written down in a clinical paper, with information about the general and local exam, diet habits, situation of arches and denture(if case), age, adaptation, comfort, quality and quantity of saliva, etc.

Clinical local exam was completed with paraclinical exams (cast for study, orthopantomography, tomography for temporomandibular joint) which determine the final diagnosis. The treatment was conducted taking into consideration the age, sex, general

conditions. Patients with general state of health influenced were supllimentary observed in order to ensure the quality of the treatment. There were choosen simply solutions, sustainable, easy to manipulate, which does not change much the cranio mandibular existing rapports amd the masticatory type.

In patients with good general state of health the prosthetic treatment considered the geroindex, with minor cautions for profilaxy and efficacy.

There were taking into account the :

- 1.the reason for which the patient came in
- 2.state of oral and denture hygiene
- 3.the existing teeth and their prosthetic value
- 4.the patient attitude towards the previous treatments

## Results

The repartition of the patients by age and sex proves a preference for feminine sex(58,69%) while the male was 41,30% as in tabel I.The patients were framed by sex, age and general state of health

SEX	State of health influenced			Total	Good state of health			Total
	60-70	71-80	>80		60-70	71-80	>80	
Male	4	6	4	14	2	3	-	5
Female	8	5	5	18	6	3	-	9
Total	12	11	9	32	8	6	-	14

TabelI I:Distribution of patiens by age, sex and general health

Age	Patients	Geroindex			Oral health			
		Subunit	Normal	Higher	Complete edentation bimaxillary		Complete/sub or extended unimaxillary	
					Treated	Not treated	Treated	Not treated

<b>60-70</b>	<b>20</b>	<b>8</b>	<b>9</b>	<b>3</b>	<b>1</b>	<b>8</b>	<b>5</b>	<b>6</b>
<b>71-80</b>	<b>17</b>	<b>7</b>	<b>8</b>	<b>2</b>	<b>7</b>	<b>2</b>	<b>3</b>	<b>5</b>
<b>&gt;80</b>	<b>9</b>	<b>9</b>	<b>-</b>	<b>-</b>	<b>6</b>	<b>-</b>	<b>3</b>	<b>-</b>
<b>Total</b>	<b>46</b>	<b>24</b>	<b>17</b>	<b>5</b>	<b>14</b>	<b>10</b>	<b>11</b>	<b>11</b>

Tabel III:Distribution of patients by geroindex and oral health

Statistics proves that from 46 examined patients, 24 of them had a stressed geroindex, 17 of them were near the normal limits and 5 were younger than their biological age.

The oral exam showed facial changes caused by age and edentation:lower inferior floor, facial asymmetries,stressed wrinkles and ditches, reduced lips, etc



Fig.1 I.C. 76 years



Fig.2 I.P. 82 years



Fig.3 C.E.73years



Fig.4 G.F. 71 years

Intraoral evaluation of the prosthetic field allowed us to fit them using Sanguolo classification and Kennedy –Apllegate , Koeler-Rusov and Schroder also.The existing remaining teeth caused problems in using special devices for support, maintenance and stability.



Fig.5,6-prosthetic fields



Fig.7,8-prosthetic fields

Examination of old dentured revealed many times disastrous, degraded ones, with incorrect retentoin elements, with tartar deposits, porosities that emphasises the irritating effect on the mucosa.The occlusal raports were changed and caused the instability and the lower masticatory efficiency.



Fig.9,10-old dentures

Denture age	Cases	Stability	Instability			
			Large flanges	Errors	Vertical dimension and modified occlusion	Lack of fitting
0-5	9	2	4	2	1	-
5-10	8	1	2	1	2	2
>10	8	-	-	-	5	3
<b>TOTAL</b>	<b>25</b>	<b>3</b>	<b>6</b>	<b>3</b>	<b>8</b>	<b>5</b>

Tabel IV:dentures evaluation

Medical education for the elderly was done by simple dialogues, with a lot of patience and tact. We presented the techniques for oral and denture hygiene, which were better understood by the patients with low geroindex, because they learn these on their natural dentition and remembered it even now and even than the conditions were changed.

We insisted on some general rules for prevention:

- well balanced life style, avoiding sedentariness with daily long walks
- gymnastics
- massages, balnear treatment
- avoid stress and overloading –factors of premature wear of organism
- good food ration, with a lot of vitamins, less salt, fats and more proteins and minerals

The type of denture was commended by the state of hygiene and the prosthetic value of remaining teeth, partial dentures being recommended when teeth were with a low value and hygiene index lower than 1.

Reduced lower face floor and malocclusion asked for a exploratory redimension of the facial floors We also used graphic method for determining central relation in some of the patients, with incorrect muscular pattern.



Fig.11-determining centric relation

We used overdentures were teeth were correct treated and covered with capes.



Fig.12,13-overdentures

If not we extracted the teeth and made an immediate denture which lead to a better acceptance of the denture.



Fig.14,15-immediate denture

## Conclusions

Recovering the arches is very difficult especially for elderly because of the stability and maintenance problems , because of the reduced lower facial floor and because of the problems caused by change position of the mandible

In patients with old dentures, making them new ones wasn't always a good solution, because they were used with old ones and their flowes and couldn't accept the correct dentures. After the correct treatment is very important to also tracking down the patients and see the way they adjust to their new situation, the way that the dentures remake the functionality of the stomatognat system, state of oral health and oral mucosa.

Prosthetic treatment for the elderly must have an integrative concept and not a standard one, being necesary an individualized treatment for each patient and for every stage of the treatment being adjusted for the main reason the patient came in, adjusted to their general health, their oral hygiene and attitude towards the previous treatments.

### **References:**

- Awad Ma, Lund Jp, Shapiro Sh, Locker D, Klemetti E, Chehade A, Savard A, Feine Js. "Oral health status and treatment satisfaction with mandibular implant overdentures and conventional dentures: a randomized clinical trial in a senior population." *Int J Prosthodont.* 2003 Jul-Aug;16(4):390-6.
- Assunção W G, Barãov. A. R., J. A.Delben, É. A.Gomes, L. F. Tabata" A comparison of patient satisfaction between treatment with conventional complete dentures and overdentures in the elderly: a literature review", *Gerodontology* Volume 27, Issue 2, pages 154–162, June 2010
- Baciu R.E., Forna N.C, "Influența tehniciilor de finisare a componentelor metalice ale aparatelor protetice asupra calității de suprafață a acestora și integrării biologice în cavitatea orală"
- Barrenäs L, Ödman P. " Myodynamic and conventional construction of complete dentures: a comparative study of comfort and function", *Journal of Oral Rehabilitation*,Volume 16, Issue 5, pages 457–465, September 1989
- Bosinceanu D.N., Forna N.C."Factori de reglare ai echilibrului musculo-ligamentar la pacienții cu edențații parțial întinse, subtotale și totale"
- Gray Jc, Navarro-Coy N, Pavitt Sh, Hulme C, Godfrey M, Craddock Hl, Brunton Pa, Brown S, Dillon S, Dukanovic G, Fernandez C, Wright J, Collier H, Swindenbank S, Lee C, Hyde Tp." Improvdent: improving dentures for patient benefit. A crossover randomised clinical trial comparing impression materials for complete dentures." *BMC Oral Health.* 2012 Aug 31;12:37. doi: 10.1186/1472-6831-12-37.
- Yasuhiro Kawai, Hiroshi Murakami, Batoul Shariati, Esa Klemetti, John V Blomfield, Lucie Billette, James P Lund, Jocelyne S Feine " Do traditional techniques produce better conventional complete dentures than simplified techniques? *Journal of Dentistry*,Volume 33, Issue 8, September 2005, p. 659–668