

## THE IATROGENIC INDUCED BY PROSTHETICS TREATMENT A CASE REPORT

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### Abstract

There are an abundance of clinical situations when a denture made entirely of acrylic resin is the most appropriate answer due to the low cost and the easy way to modify it. Using a treatment with skeletal partial denture the dentist can have a clearer idea about retention, support and esthetic solutions. A modern approach that can bring the patient a lot of comfort, stability and durability when things are done completely right and respecting the gnathological parameters in static and in dynamic occlusion, otherwise the homeostatic system is damaged and the possibility of SDSS appearance with joint pain discomfort.

**Key words:** removable partial skeletal prostheses, SDSS, iatrogenic, parameters of occlusion, aesthetic treatment.

### INTRODUCTION

The need and demand for removable partial denture is a common problem nowadays. Implant treatment is the most pretentious, modern complex but also expensive and that is why not all people can take this as an indication for treatment using other suitable options depending on the criteria taken into account. Sometimes the difficulty of the case supposes a complicated decision and postpones a definitive treatment plan[1,2,3].

This kind of denture used for a short or long time interval will provide aesthetics, mastication, occlusal support and convenience. Sometimes this denture can be helpful in conditioning the patient to accept the final prosthesis[4,5,6]. The patient may wear the skeletal denture for a very short period or for an extended period of years,

depending on the situation. And the patient's ability to adapt and tolerate the materials and accustomed with prosthesis being a very important level that defines a successful or contrary summary and changing therapeutic solution or correcting errors that prevent proper functioning which in turn will generate dysfunctional syndrome of the stomatognathic system[7,8,9].

There are links in terms of appearance SDSS with stress but there are clinical situations created by neglect patients or iatrogenic and due to changes of gnathological parameters and their disruption can cause imbalances and thus in the absence of the stresses as the main cause or pathology of collateral presented can lead to the dysfunctional syndrome of the stomatognathic system.[10,11,12]

**MATERIAL AND METHOD**

In our case the patient was a 66 years old woman, with a modest social position, former worker at a factory acrylics, now retired whose dental care was neglected in her childhood and young age, due to the material possibilities of her family and after that period the anxiety toward dental praxis climate .

**RESULTS AND DISCUSSION**

The only dental treatments provided were as emergency solutions, extractions and some appropriate amalgam restauration

at 2,6,2.5,2.4,2.3,2.2,1.6,4.7, (2.6 LOC cl.IV Duchaupe, cl. II Black2.5 integre,2.4 LOC cl.IV Duchaupe, cl I Black2.3 integre,2.2 LOC cl. IV Duchaupe, cl III Blac 16 ,LOC cl.IV Duchaupe, cl. I Black at maxilla and 4.7 LOC cl.IV Duchaupe, cl. I Black at mandibule). The long-term absence of antagonists induced disorder in the occlusal plane there by creating anesthetic and functional failures.

The situation at the first visit of our patient is illustrated on the documentary casts (Fig.1a, b, c). and the clinical situation of maxilla and mandibular arch with and without skeletal prosthesis(Fig. 2 a, b, c).

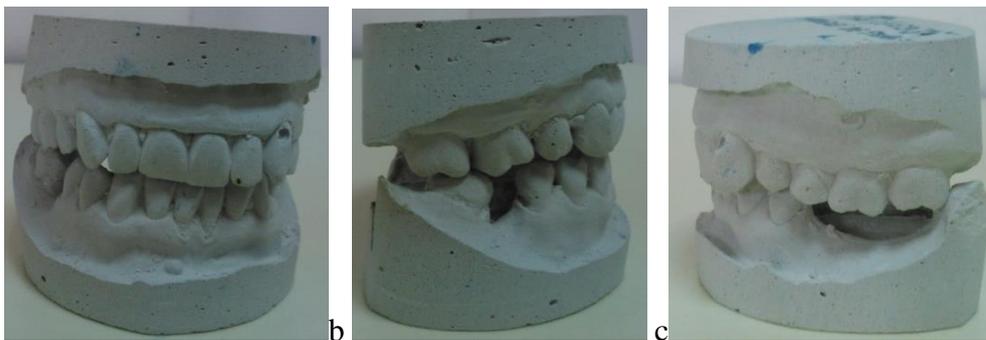


Fig. 1 (a,b,c). Documentary casts at the first visit of the patient some of the remaining teeth are contacting.

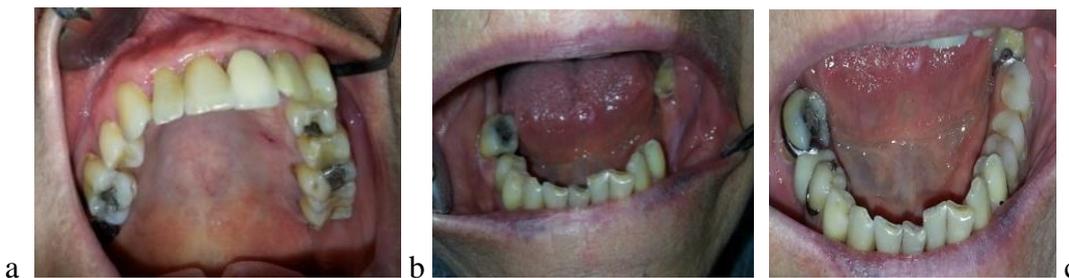


Fig. 2(a,b,c).Clinical examination on maxillar and mandibular arch-frontal and lateral view

After clinical inspection and investigations on study patterns on dental alveolar arches it reveals that was followed the extraction of some important mandibular, teeth, molars,premolars,(3.5,3.6,3.7,4.6),the some time important disadvantages in addition to the clinical situation of the patient starting the first clinical sign

started as part of the dysfunctional syndrome of the stomatognathic system which consists in the first step with dental migration phenomenon found in literature as the Godon phenomenon .

The correlation between the clinical data and paraclinical images reveals the difference between the distance travelled

from the right side condyle compared to the left side condyle, the right side condyle

movement having a greater amplitude than the left side (Fig.3a).

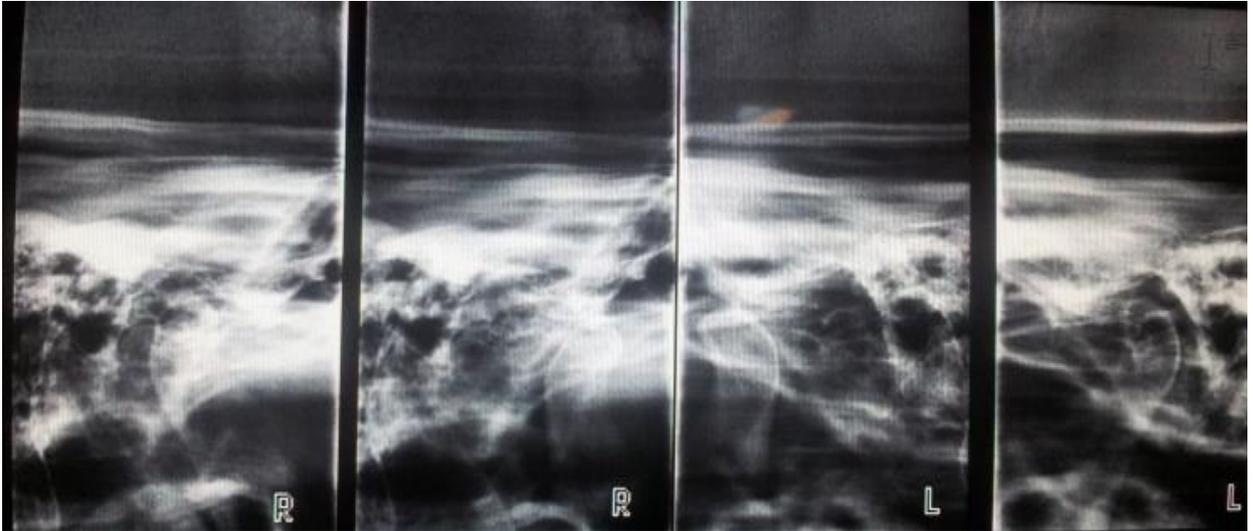


Fig 3a. Laboratory examinations -tomography ATM-shows us

An insight into patient history and insistence on diseases of other organs, are able to establish general factors favoring endogenous stomatognathic dysfunction. We advocate for endocrine, metabolic,

neurological, ophthalmic, psychiatric, etc., which the patient can recall in the background, along with other pathologies that affect the overall condition. age and social circumstances



Fig 3b. Orthopantomographical aspects of clinical case

This paraclinical exam gives us information about the overflowing crowns 1.7,2.1, fillings overflowing 2.6,2.4., the inlay crown-root wrong manufacturat at 2.1, and presence of the periapical pathology at mandibular teeths, vertical and horizontal bone lysis due to chronic marginal periodontitis superficial to deep, intracanal treatments incorrectly

performed at 2.1 and 1.7 and the edentation aspects II Kennedy class with two changes of mandibular and Kennedy class one maxillary (Fig.3b). Dawson is one that assumes that muscle function is changed in the presence of occlusal interference, obstacles joint changes periodontal proprioceptive organ plays of the stomatognathic system. To avoid

obstacle installs muscle and joint dysfunction, spasms, contractures, muscle fatigue, pain, jaw being diverted from its normal growth.

The practice examination of objective temporomandibular joint starts by inspection, palpation and auscultation at static and dynamic pretragiene regions

of TMJ, first separately and then together for comparison. Palpation is done in the both two ways. Pressure sensitivity of the components of the temporomandibular joint will be detected by slight compression on the chin, the patient standing with his mouth slightly open, as following (Fig.4,5)



Fig. 4. Clinical examination TMJ-static aspects



Fig.5 TMJ in the dynamic clinical examination

This clinical examination, indicate normality in menton area also pretragiene zone and asymmetry and asinergism of condilies special of right condil foregoing in motion the left mandibular condyle. During TMJ examination there is an element that is called compression on menton that is

very important and if this manevrre of differential diagnosis of our case advocating unpainless muscle injury. Examination of the stomatognathic system muscles will consider pursuing elements: assessing muscle tonicity, muscle appearance and inserts bilateral and symmetry (Fig.6).



Fig. 6 Clinical examination of the temporal muscle, masseter, internal pterygoid, external pterygoid

A slight differences are clinical muscle, a hypercontraction of internal decelerated, on the right side of pacientes external pterygoid masseter and temporal.

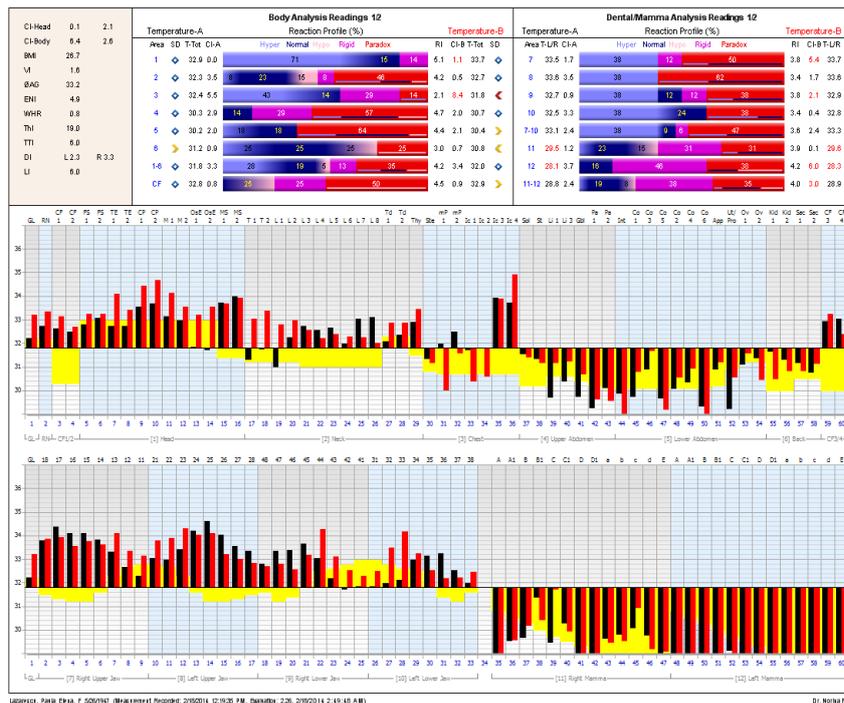


Fig 7. Thermographic laboratory examinations

Orienting ourselves on muscle groups, there is a thermographic laboratory examinations and the clinical examination comparative right and left , a slight differences also are inregistered on the

right side of pacientes muscle , a hypercontraction of internal pterygoid, external pterygoid, masseter and temporal and also another general disease(Fig.7).



Fig 8. Dynamic occlusion exam protrusion, left and right laterality

Complete clinical examination demonstrated the dynamic occlusion, occlusal interference occurring during movement protrusion. Movement test-continuity- and position test (contacts of 2.1 with 41 and 3.1.) movement right laterality and left also, indicate in functionality clinical inspection – where is the specific area we can intervene, to relieve area (2.1) that blocks movement test and creates disturbances in the dynamic occlusion and generates symptoms SDSS.(Fig 8).

So after a very well-established diagnosis of clinically and laboratory skeletal mandibular denture-bearing patient due to discomfort caused by dysfunctional syndrome installed, followed a specific medical treatment, specific prosthetic treatment for occlusal adjustment and rearrangement.

As a result of all clinical and theoretical data accumulated would like to propose a staging of this therapy, stating that it must be individualized for each patient and tailored treatment needs:

1. Analgesic therapy: involves a series of steps that require: Using restrictive stomatognathic system; Using medication pain relievers; The use of muscle relaxants;

Induction of muscle relaxation through various methods (biofeedback, psychotherapy associated reevaluation social status); Interception occlusion with or without anti-inflammatory or analgesic therapy.

2. Etiological therapy: removal of etiologic factors and risk in the stomatognathic system elements; behavioral therapy, reducing or completely removing the vicious habits and parafunctions stomatognathic system; Reduce stress, believed to be contributing factor.

3. Physical therapy structures affected muscle recovery :Physiotherapy ;Correction factor occlusal ;Interception occlusal ;Therapy skeletal muscle relaxants, anti-inflammatory or analgesic.

4. Reevaluation of risk factors in the stomatognathic system elements.

5. Therapy muscle toning and reconditioning. Due to multiple ways to achieve muscle reconditioning therapy, allowing the treatment of cranio-mandibular choices muscle becomes obvious that it is involved in all phases of treatment of complex rehabilitation of the stomatognathic system.



Fig.8 Occlusal interference recording with the help of joint paper, selective grinding at 2.1 level and after this to molars and premolar in lateral area .

After all, history, clinical examination and laboratory tests, we can speak of a dental recovery through selective grinding, clinical methods, physiotherapy and adjuvant drug therapy. Nowadays physiotherapy methods are more commonly used to treat disorders of the stomatognathic system to achieve a more pronounced muscle relaxation for education of normal mandibular movement patterns in order to ensure a normal joint functions, to remove tics and parafunctions. Reeducation head position, neck, shoulders and language therapy is essential in craniomandibular dysfunctional syndrome in postural

training because there are some data that confirms the close relationship between the various postural abnormalities and dysfunctional craniomandibular symptoms. In our case applied a combination of drug therapy rebalancing myorelaxation occlusal therapy and treatment based on ozone therapy.

Ozone therapy represents another modern and efficient option in terms of treating muscular imbalances level - joints in the dysfunctional syndrome of the stomatognathic system. The medical ozone is used in medicine derivative conversion of oxygen ( $O_2$ ) to  $O_3$  (Fig.9).



Fig.9 Aspects of medical ozone used in dentistry

After application of ozone therapy was a major improvement contributing to their comfort.

Local use on the pretragene zone local inflammatory, internally Mydocalm XXVIII day, morning and one tablet in the evening, 50 mg. comprimats, accompanied as COENZYME Q 10, 1/day and complex as ca mg zn1/day, and also the specific recommendation

After the selective grinding treatment – the Iasi clinical method, applied to the occlusal interferences, was also used ozone therapy that offered our patient the expected comfort and help.

### Conclusions

After an entire month of treatment complex muscle noticed good improvement and patient could return to normal function, but the principles to act on this type of iatrogenic facts applied here are just to improve a state of discomfort of the patient should follow a stepwise treatment control of all type of parameters orthodontics, extraction, restoration of endodontic treatments needs and fillings, dentures, so that we can call the correct, complex and viable intervention of rehabilitation of the patients.

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