COMBINATION SYNDROME AND MAXILLARY COMPLETE DENTURE WEARING: CLINICAL STUDY

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ABSTRACT

Combination syndrome once natural lower anterior teeth oppose upper an edentulous jaw. The present article aims at recording the signs of combination syndrome in study population. This study was conducted in department of removable prosthodontics. It included 252 patients are wearing maxillary completedentures and mandiblar partially edentulous wearing and not wearing mandibular removable partial dentures (kennedy class I). They have been assessed for numerous signs. (29%) sufferers have been determined positive for combination syndrome out of 252 tested patients. Out of seventy-three patients, mandibular removable partial denture (RPD) wearing were 42 and 31 patients were not wearing mandibular removable partial dentures. Maximum patients have been recorded for loss of upper denture retention (Group A - 32, Group B- 22). The want for alternative for upper denture become visible in 35 patients s in- group A and all dentures in- group B.

Lack of mandibular denture stability was seen in all dentures in-group A due to bone lost, and in Growth of the tuberosities was seen in 16 in-group A and 23 in-group B. Loss of lower dentures stability changed into visible in all dentures in- group A. and bone resorption in free saddle areas. Growth of the tuberosities changed into visible in sixteen in- group A and 23 in- group B. The difference was significant (0.04). Papillary hyperplasia was significantly higher in-group B (19) than group A (11). Hypermobility of the anterior part of the maxilla and extrusion of lower anterior teeth were seen significantly higher in group B (23) than group A (9) The rate of combination syndrome was 29% with slight group A. The distinction used to be considerable (0.04). Papillary hyperplasia was once drastically greater in-group B (19) than crew A (11). Hypermobility of the anterior section of the maxilla and extrusion of decrease anterior enamel have been considered drastically greater in group B (23) than group A (9) The charge of aggregate syndrome used to be 29% with mild group A.

Keywords: Denture; Flabby ridge; Papillary hyperplasia; Occlusion

1. INTRODUCTION

The absence of teeth can be managed by partial or complete denture if patient has few missing teeth or complete loss of teeth respectively. The prognosis depends upon various factors. Situation becomes difficult when

maxillary complete denture opposes mandibular removable partial denture [1]. Kelly in 1972 was the first to coin the term combination syndrome for this oral condition, and its associated clinical features when analyzing five patients wearing a maxillary complete denture occluding with a distal-extension removable partial denture (Kennedy Class I). [2], The characteristic features of this syndrome include destructive changes in the hard and soft tissues. Changes consisting of bone loss from the anterior part of the maxillary ridge, overgrowth of maxillary Tuberosity, papillary hyperplasia of the palate, extrusion of the lower anterior teeth and loss of bone under the RPD bases [2].

Saunders et al., in 1979 described six further changes or signs associated with this syndrome. They embrace, reduces of vertical dimension of occlusion, Occlusal plane discrepancy, Anterior spatial locating of mandibular bone, Poor adaptation of prosthesis, Epulisfissuratum, Periodontal changes [3]. Other research noted that patients with combination syndrome experienced progressive difficulties in wearing dentures and eventually required surgical correction to improve prosthetic functioning. [4,5].

The success of dental management in such patients depends on the achievement of stability, retention and proper support for the prosthesis to interfere with the combination syndrome mechanism and associated major causative factors like the great magnitude of forces, the unsuitability of the denture foundation, and particularly the unfavorable occlusal contact produced by the remaining natural teeth. In addition to that, the proper use of the prosthesis in the masticatory process is also a crucial factor [6].

Shen and Gongloff [7] investigated the prevalence of combination syndrome in patients with complete maxillary dentures and found that 7% of patients experienced pathological alveolar ridge changes consistent with a diagnosis of combination syndrome. The aim of the present study was to determine the prevalence of symptoms associated with combination syndrome among maxillary edentulous patients with wear (Group A) and not wear (Group B) mandibular removable partial denture.

2.MATERIALS& METHODS

The study was conducted in the Prosthodontics Department, Faculty of Dentistry, University of Asmariya, Libya. It included 73 patients (32 women and 41 men). The sample was selected from patients with a completely edentulous maxilla wearing maxillary complete dentures (CD) and with a edentulous mandible (Kennedy Class I), wearing or not wearing a mandibular removable partial denture (RPD), Patients wearing mandibular RPDs that were not made with a metal structure. Patients who showed parafunctionalocclusal forces or a history of systemic diseases that could affect bone metabolism or accelerate the resorption process were excluded. Further criteria were that they had been using the prostheses for not less than three years. Combinations syndrome patients were classified into group (A) who were wearing mandibular RPD and group (B) were not wearing mandibular RPD. Then they were submitted to a clinical oral examination conducted to determine the presence or absence of the clinical signs specific for Combination Syndrome (CS),as described by Kelly [2]. Results thus obtained were subjected to statistical analysis using SPSS version 19. The chi-square test was used with no significance level of 0. 3

To determine the association between the dependent wearing RPD (group A) and independent not wearing RPD (group B) variables,

3. RESULTS

Seventy-three patients (29 %) were found positive for combination syndrome out of 252 examined cases (Figure 1). Out of seventy-three, forty-two patients were wearing mandubular RPD (Group A) and thirty-one patients were not wearing RPD (Group B) (Table 1). The difference was non-significant.

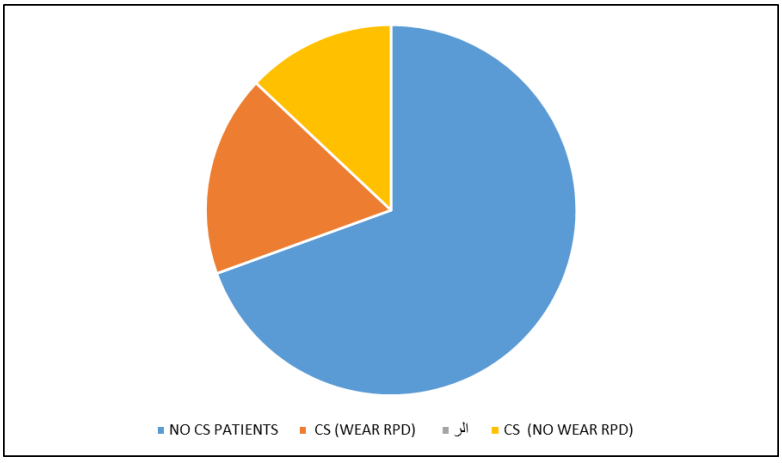

Fig-1: Number of Combination Syndrome Patients in Examined Cases

TABLE 1: DISTRIBUTION OF PATIENTS

Total – 252			
Group A	**Group B**	**Std. Deviation**	**P Value**
42	**31**	**0,000**	**1,00**

Maximum cases were recorded for lack of maxillary denture adaptation (Group A - 32, Group B - 22). The need for replacement for maxillary denture was seen in 35 cases in-group A and all dentures in-group B Lack of mandibular denture adaptation was seen in all dentures in-group A.

andbone lost in free saddle area.Growth of the tuberoisities was seen in 16 in-group A and 23 in-group B. Need for replacement for mandibular denture was seen in all dentures in group A. The difference was significant (0.04). Papillary hyperplasia was significantly higher in-group B (19) than group A (11). Hypermobility of the anterior part of the maxilla and extrusion of lower anterior teeth were seen significantly higher in group B (23) than group A (9). The difference was significant (Table 2).

TABLE 2: PREVALENCE OF COMBINATION SYNDROME

CS Fearers	PATIENTS		P value
	Group A	Group B	
Maxillary anterior alveolar bone Hypermobility (HAPM)	9	23	0.02
Overgrowth of maxillary tuberosities (GT)	16	23	0.07
Papillary hyperplasia (PH)	11	19	0.04
Extrusion of the lower anterior teeth (ELAT)	9	23	0.02
Mandibular posterior alveolar bone loss (MPABL)	34	11	0.08

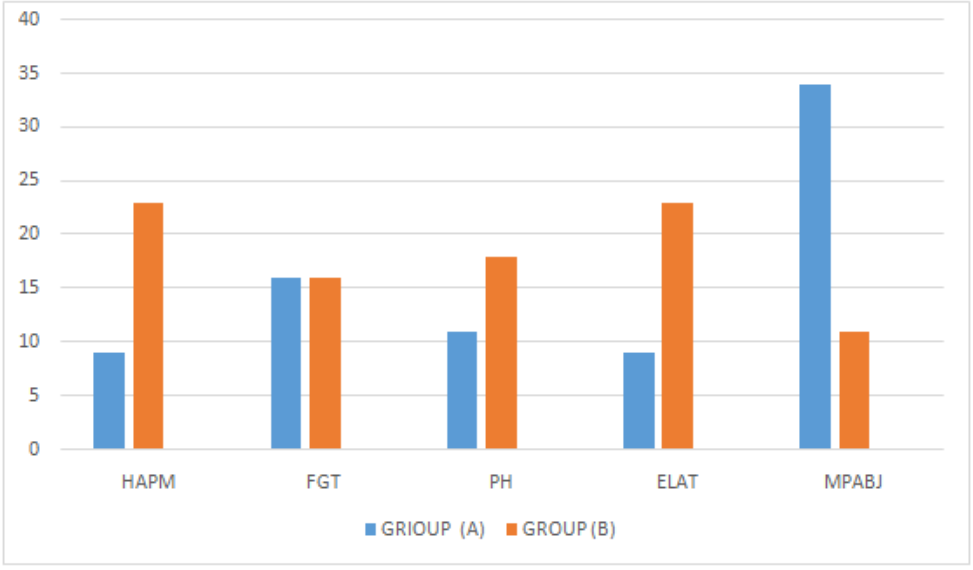

Fig-2: Prevalence of combination syndrome

4. DISCUSSION

Treatment of patients with an edentulous maxilla opposed to natural mandibular anterior teeth and a distal-extension RPD is considered a challenge for dental practitioners [8].Combination syndrome has a occurrence about 24% for denture patients. Therefore, it is quintessential for dentists to apprehend the unique troubles of sufferers and grant a complete remedy plan.

Increasing the premaxillary alveolar ridge and loss of ample posterior occlusal contacts are necessary elements in relation to mixture syndrome [9]. This study was conducted on 73 patient having maxillary denture and Kennedy class II (mandibular bilateral edentulous areas posterior to reaming anterior teeth).

Crum RJ [10] in his learn about have discovered 27% occurrence rate. However in our study, it was once 29 percent. Non-wearing RPD (Group B) was once confirmed extra signs and symptoms as in contrast to carrying RPD (Group A), without mandibular posterior alveolar bone loss (MPABL).

Lack of upper denture retention, need for replacement for upper denture and lack of lower denture stability showed higher prevalence rate as compared to other indices. Maybe this can be defined with the aid of mechanical forces performing in a Kennedy Class II RPD, which generates much less torque to abutment enamel [11].

The increase of the tuberosities used to be frequently viewed bnilaterally, accentuating the lack of occlusal balance furnished via acrylic teeth. One can theorize that disocclusion on the working facet with herbal tooth would generate a lever pressure on the non-working facet with acrylicteeth,

dislodging the whole prosthesis, giving area for down boom of the tuberosities and main to the resorption of mandibular residual ridges [6].

Maximum assist of the denture-bearing area, renovation of the mandibular posterior abutment, and balanced occlusion have been all proposed to stop bone loss and extra stress on the anterior maxillary alveolar ridge. Similarly, Van Waas et al [12] cautioned the avoidance of whole teeth extraction, the protection of a few teeth, and the use of overdentures.

Shen K [7] observed 11% of cases. There is want to test for denture flanges to keep away from these complications.

5. CONCLUSION

Dental history and the health of the remaining mandibular front teeth are used to assess the risk of acquiring the combo syndrome. Individuals who stress the maxillary ridge, parafunctional habits, and patients who have functioned primarily with mandibular anterior teeth for lengthy periods, are more prone to display alterations associated with the condition. Wearers of complete upper and partial lower dentures will very certainly have degenerative changes in their edentulous areas. The dentist must carefully arrange the treatment of these patients in order to preserve the health of their oral tissues and equip them with prosthetics that operate while not contributing to the combo syndrome. A thorough diagnosis, treatment planning, and execution will result in a fantastic outcome for both the patient and the dentist.

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