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Research Article

THE BIBLIOMETRIC STUDY IN SURGICAL ARTICLES FOR THE TREATMENT OF MALOCCLUSIONS OF SKELETAL CLASS II

Dr Syed Muhammad Mubashar Zia, Dr Hafiz Fatim Jawad, Dr Talha Maood
Sheikh Zayed Medical College RYK

Article Received: September 2020**Accepted:** October 2020**Published:** November 2020**Abstract:**

Background: There are primary 32 teeth of normal person each of which are present in the pair form in upper and lower portion which tells that there are six pairs of teeth in mouth including upper and lower incisors. Strength of each pair is different from other on the basis of presence and nature of job because each pair is responsible of working different job from other pair. There are two types of treatment of these teeth that includes both surgical and non-surgical methods and both are effective for the treatment of malocclusions of skeletal class II.

Objective: The study was conducted to find that the most effective treatment that can used to improve the quality of life for the patients dealing with malocclusions of skeletal class II. Furthermore, the study also found the efficacy of surgical and non-surgical methods for the treatment.

Methodology: A cross sectional study was performed in the hospital to determine the clear understanding of dental procedures. In the study total number of patients was 28 from which most of the participants were women as 26 were female while only 2 were male. The mean age of patient was selected before conducting the study and patients below or above than that age was excluded from the study and average age ranges from 20 to 40 years.

Results: The results determined that surgical and non-surgical treatment can be used for the treatment. Various method for surgical treatment are used but from various methods the most common and effective method was overjet correction, Herbst and camouflage.

Conclusion: It was concluded from the results that the analysis of strength of pair of teeth is important and helps the health care practitioner in doing treatment in effective manner. The strength of pair depends on the pair, age and gender. Mostly patients whose data was collected for the study were women which show that gender has higher influence on strength of teeth's pair.

Keywords: Malocclusions of skeletal class II, growth modification, orthognathic surgery, occlusions, Orthoganthic surgery

Corresponding author:

Dr Syed Muhammad Mubashar Zia,
Sheikh Zayed Medical College RYK

QR code



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INTRODUCTION:

Malocclusions of skeletal class II can be treated by a health practitioner in 3 various ways such as by orthognathic surgery, growth modification or alteration and Camouflage. The treatment of skeletal class II depends on different factors such as overjet, age of patient, gender, growth status and severity of the disease occlusions(Chaiyongsirisern, Rabie et al. 2009, Bock and Ruf 2012). The experiments have been made on finding the best method among that can treat such disease effectively and research showed that all means of treatment are good enough that there is now no need to worry for the people during treatment of teeth that is major loop hole of young and adult. The patients that are suffering with moderate or severe class II with deficient mandible are usually treated with the Orthognathic surgery to move forward the mandible with bilateral sagittal split osteotomy (Marsico, Gatto et al. 2011)

The selection of treatment for the disease depends on the choices of patient as well as severity of disease such as surgery is the best option but can not be performed without patient willingness. But most of the patients preferred non-surgical treatment and other alternative treatment for the treatment of disease. Many studies have been studied to determine the outcomes of different type of treatment such as surgical and non-surgical treatment for improving the quality of adolescent(Nucera, Giudice et al. 2016)

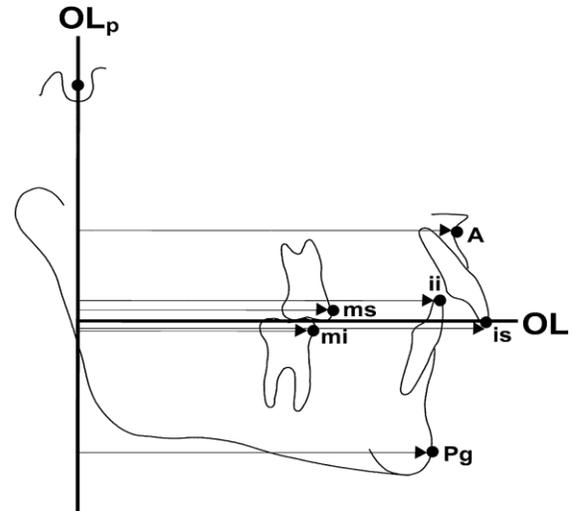


Figure 1: Rlp plans sections wise pairs differences. Overjet correction method that was used in this article was compared with other types of treatment such as mandibular sagittal split osteotomy and Adult Herbst treatment. It was shown in figure 1 the study that occlusal results can be comparable between various groups by dental changes were major in the Herbst patients(Perillo, Cannavale et al. 2011)

Many researchers and health care practitioners have recommended the Herbst treatment for the adult class II division 1 borderline cases. No any study has been performed in the past to determine the treatment of this disease by using Herbst appliances in class II appliances. The purpose of this study is to determine the dental skeletal effects for the treatment of Class II adults by Herbst appliance(Michelotti, Buonocore et al. 2011)

RESULTS:

Table 1: Molar_relation2

molar_relation1 * molar_relation2 Crosstabulation					
Counts		molar_relation2			Total
		class1	supra 1	class 3	
molar_relation1	class 1	0	1	0	1
	class 2	3	3	2	8
	1/2 cusp 2	3	5	1	9
	1/4 cusp 2	1	1	0	2
	3/4 cusp 2	2	0	1	3
Total		9	10	4	23

The table 1 indicates the frequency of treatment method that are applied for the various pairs of teeth. All the six classes of teeth were accessed in the test. The results indicated that there was no any problem in class 1 and class 2 pair of teeth but other pairs has direct related with the treatment. T-test was also applied in the test whose results showed that these results are not significant because the value was greater than 0.05.

Table 2: Molar_relation1 * molar_relation2 Crosstabulation

Count		molar_relation2					Total
		class1	supra 1	class 2	1/2 cusp 2	class 3	
molar_relation 1	class 1	0	1	0	0	0	1
	class 2	3	4	0	0	2	9
	1/2 cusp 2	3	7	1	0	1	12
	1/4 cusp 2	1	1	0	0	0	2
	3/4 cusp 2	2	0	0	1	1	4
Total		9	13	1	1	4	28

The table 2 determined the relation between molar relation 1 and molar relation 2 teeth. Lateral headfilms from before Herbst treatment (T1), after Herbst–Multibracket treatment (T2), and after retention (T3) were analysed. The ‘sagittal-occlusal analysis’ (SO analysis, Figure 1) according to Pancherz (1982) as well as standard cephalometric variables (Figure 2) were used for the assessment of the treatment and post-treatment dentoskeletal changes. Paired t-test statistics were performed to determine means differences of pretreatment and post treatment pairs of skeletal variables. Correction in sagittal direction was determined by the mean difference of ANB which was 1.23+1.32mm (p=0.000) and the difference was small but was statistically significant. SNB angle was increased (-1.59mm +1.51mm) p=0.000 while linear measurement OLp-pg is -7.50mm+6.76mm (p=.000) and Co-Gn 3.20mm+3.62mm (p=0.000) were increased which also showed it is statistically significant. This showed that the correction was mainly attributed to mandibular forward movement by statistically classified that there are sufficient evidence to indicate that the treatment affects average measurement. For the whole sample, Mean Overjet correction of 5.42mm+2.73mm (p=0.000) was observed. The change was statistically significant. Molar relation was corrected by 1.28mm+2.55mm p=0.01, the change in molar relation is statistically significant.

DISCUSSION:

The results determined that the most effective treatment for the improve affect was overjet correction because this method is effective and easy includes in non-surgical treatment. The results were similar to a study conducted by Mihalik et al. which also stated that both surgical and non surgical methods are used for treatment but the most effective is overjet correction as compared to other. It was also

found in the study that the treatment options depend on the nature of disease, severity of disease and willingness of patient. The surgical method gives better results but morbidity rate is high in surgical treatment method of occlusion of Class II.

The results found that the strength of teeth and its pair also influence the treatment because the pair of teeth which has high strength needs better and effective method that can treat the teeth in good manner. The results were similar to a study performed by Kinzinger et al. which find the outcomes in the patients that were dealing with Class II Division I malocclusions at the age of 60 after the surgical and non-surgical treatment. The results of studies found alteration in all skeletal categories because skeletal base highly influence the treatment. The treatment of patients in the study had reduction in overjet and significant protrusion was present in the incisors. Thus, it was clear that our results were similar with that study.

CONCLUSION:

It was concluded from the results that the analysis of strength of pair of teeth is important and helps the health care practitioner in doing treatment in effective manner. The strength of pair depends on the pair, age and gender. Mostly patients whose data was collected for the study were women which show that gender has higher influence on strength of teeth's pair.

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