

Effectiveness and Efficiency Bracket with Deuteromalay Standard Norm in the Treatment of Class I Malocclusion

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Introduction

Indonesia has a population of is 240 million and is the fourth largest country in the world in terms of population. The Indonesian people are consisting of two races, namely the Deuteromalay and Protomalay (Glinka, 1987). Most of the Indonesian population is the Deuteromalay and majority live on the island of Java. The increasing popularity of using fixed appliances and the lack of the appliances specifically for the different race has given rise to the necessity for such appliances. Every race has its own characteristic that is not found in the other races. Andrew said that each tooth in order to get maximal results should have their bracket made customised to the measurement. The aim of this study was to find out how effective and efficient using bracket with Deuteromalay standard norm in the treatment of Class I malocclusion.

Method

This study was a clinical trial to evaluate the success of treatment with fixed appliances made based on Deuteromalay normal angulations and inclination standards compared with Caucasian fixed appliances. One hundred twenty patients with a Class I malocclusion with anterior teeth crowding were divided into two groups treating with two different kind of fixed appliances. The study was carried out at the Clinic of the Sub-Department of Orthodontics at the R. E. Martadinata Dental Institute of the Indonesian Navy.

Result and Discussion

The study had been conducted for twelve months, 65 cases had completed treatment, and comprising 35 cases with Deuteromalay fixed appliances and 30 with Caucasian fixed appliances. More of the former cases finished their treatment before the latter (Table 1).

Table 1. Treatment Time of Cases by Use of Deuteromalay and Caucasian Fixed Appliances

Bracket	Month												Total
	1	2	3	4	5	6	7	8	9	10	11	12	
DM			3	3	4	9	4	4	1	2	5		35
K				3		3	5	9	3	3	1	3	30

The result of study was found that the subjects who used the Deuteromalay fixed appliances finished earlier. Based on the length of time of treatment, the first case completed was a subject with a Deuteromalay fixed appliance whose treatment took 77 days, whereas the time required completing treatment with a Caucasian fixed appliance was 103 days. On the 209th day, 23 cases with Deuteromalay appliances had been completed compared to 11 using the Caucasian appliances. The first subjects with Deuteromalay and Caucasian fixed appliances that did not 'survive', which in this study meant completed, can be seen in the survival function results (Table 2).