

ABSTRACT

HUBUNGAN ANTARA KURVA SPEE DENGAN DISKREPANSI PADA MALOKULUSI KELAS I DENGAN GIGI BERDESAKAN

THE RELATIONSHIP BETWEEN CURVE OF SPEE AND DISCREPANCY IN CLASS I MALOCCULSION

Background: Ferdinand Graf von Spee is credited with characterizing human occlusal curvature viewed in the sagittal plane. This naturally occurring phenomenon has clinical importance in orthodontics and restorative dentistry. However, exaggerated curve of Spee is frequently observed in dental malocclusions. Such excessive curve of Spee alters the muscle imbalance, ultimately leading to the improper functional occlusion. It has been proposed that an imbalance between the anterior and posterior components of occlusal force can cause the lower incisors to overerupt, the premolars to infraerupt, and the lower molars to be mesially inclined. This altered condition has to be corrected. The treatment plan for the correction of curve of Spee depends on the space needed. Space can be obtained through non-extraction method or extraction method. **Purpose:** The aim of the study is to evaluate the relationship between the depth of curve of Spee to discrepancy in Class I Malocclusion. **Method:** Materials consist of 30 diagnostic dental casts in RSGMP FKG with criteria class I malocclusion on untreated subjects age between 18 to 25, secondary permanent molar and secondary premolar are fully erupted, diagnostic dental casts are in good condition, subject has to be free from dental caries. The relationship between the depth of the curve of Spee and discrepancy were calculated using Spearman correlation analysis. The combination value of the depth of curve of Spee and discrepancy which is known as total discrepancy is noted. The outcome were later being cross reference with the treatment that suggested by the orthodontist. The depth of Curve of Spee is one of the factors that determine the treatment plan for malocclusion cases. **Result:** The mean depth for curve of Spee in RSGMP FKG is more than 2 mm but less than 4 mm. Discrepancy was positively correlated with depth of curve of Spee. An increase in the depth of curve of Spee, will cause an increase in the amount of discrepancy. The leveling of the depth of curve of Spee was taken into consideration in space management procedures which is non-extraction method or with extraction metode. **Conclusion:** The curve of Spee is related to discrepancy. Thus, the determination of this relationship is useful to assess the feasibility of leveling the curve of Spee by orthodontic treatment.

Key words: Curve of Spee, Discrepancy, Class I Malocclusion