Perbandingan kecepatan penutupan ruang pencabutan gigi premolar pertama rahang bawah antarasistem ligasi konvensional dan sistem self ligating pasif menggunakan closed coil spring uji klinis = A comparison of the rate en masse space closure using conventional and pasif self ligating brackets using closed coil spring

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Abstrak

Prevalensi kejadian maloklusi cukup tinggi. Seorang ortodontis dituntut bekerja efektif dan efisien waktu. Braket self-ligating di klaim memfasilitasi pergerakan gigi lebih baik, friksi lebih kecil sehingga lebih efektif dan efisien waktu. Tesis ini bertujuan untuk mengetahui perbandingan kecepatan penutupan ruang pencabutan gigi premolar pertama rahang bawah antara sistem ligasi konvensional dan sistem self-ligating pasif menggunakan closed-coil spring serta melihat kehilangan penjangkaran antara kedua sistem.

Desain penelitian ini prospective randomized controlled clinical trial dengan teknik split-mouth. Dua puluh dua regio rahang bawah sampel siap untuk dilakukan retraksi enmassedipasangkan braket MBT Agile 3M slot.022" pada keseluruhan satu regio, regio dan braket Damon Q standar torque Ormco pada regio sebelahnya, aktivasi closed-coil spring. Pengukuran kecepatan penutupan ruang dan kehilangan penjangkaran dihitung dari model cetakan gigi pada 4 dan 8 minggu.

Hasil menunjukkan perbedaan bermakna kecepatan penutupan ruang serta kehilangan penjangkaran antara kedua kelompok dimanaself-ligating pasif lebih cepat menutup ruang dengan rata-rata penarikan 4 minggu 0,58mm dan 8 minggu 0,74mm, serta lebih tahan terhadap kehilangan penjangkaran. Dapat disimpulkan braket self-ligating pasif cukup efisian dan efektif pada tahap penutupan ruang. Teknik split-mouth efektif melihat perbandingan kecepatan penutupan ruang serta kehilangan penjangkaran dengan meminimalkan variasi antar individu.
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Malocclusion prevalence is high, an orthodontist needs to be efective and efficient in treating malocclusion. Self-ligating brackets are claimed more effective and efficient, which have less friction in ortodontic movement than conventional brackets. The objective of this study is to compare the rate of mandibular en-masse space closure retraction and loss of anchorage between pasif self-ligating brackets and conventional brackets using closed-coil spring.

The design of this study was prospective randomized controlled clinical trialwith splitmouth technique. Twenty two mandibular quadrant that ready for en-masse space closure retraction was placed with conventional bracketsMBT Agile 3M slot.022" in a whole quadrant, while the contra lateral was placed with pasif self-ligating brackets Damon Q standar torque Ormco. The en-masse space closure retraction rate and loss of anchorage measurement was made in study model in 4 and 8 weeks.

The results were there was significant difference between pasif self-ligating and conventional brackets

regarding the en-masse space closure retraction rate and loss of anchorage rate. Self-ligating brackets were faster in en-masse space closure with mean rate 0,58mm in 4 weeks and 0,74mm in 8 weeks and more resistant in loss of anchorage. Split-mouth technique was effective to compare the rate of mandibular en-masse retraction and loss of anchorage between self-ligating bracket and conventional bracket using closed-coil spring, where individual variability was minimized.