

**Perbedaan besar friksi kinetik antara braket Edgewise standar slot .018 dengan slot .022 pada saat pergerakan sliding gigi kaninus =
Comparative study of kinetic frictional force between .018 and .022 Edgewise bracket slots in simulated sliding canine movement**

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Abstrak

Tujuan: Penelitian ini bertujuan menganalisis perbedaan besar friksi kinetik antara kombinasi braket Stainless Steel (SS) Edgewise slot .018 dan kawat SS .017X.025, dengan kombinasi braket slot .022 dan kawat SS.019X.025 pada saat pergerakan sliding gigi kaninus.

Metode: Penelitian laboratoris ini terdiri dari 96 sampel yang terbagi atas dua kelompok slot braket, dan setiap kelompok slot braket terbagi atas empat kelompok beban tahanan. Besar friksi kinetik diukur dengan Universal Testing Machine merk ChatillonTM pada kedua kelompok slot braket saat pergerakan sliding gigi kaninus yang diberi beban tahanan 0, 50 gr, 100 gr, dan 150 gr.

Hasil: Friksi kinetik pada kelompok braket slot .018 lebih besar daripada slot .022 secara bermakna pada kelompok beban tahanan 0, 50 gr, dan 100 gr, namun tidak bermakna pada kelompok beban tahanan 150 gr. Besar friksi kinetik meningkat secara bermakna seiring peningkatan besar beban tahanan 50 gr, 100 gr, dan 150 gr pada kedua kelompok slot braket.

Kesimpulan: Friksi kinetik pada kombinasi braket SS Edgewise slot .018 dan kawat SS .017X.025 terjadi lebih besar daripada kombinasi braket slot .022 dan kawat SS .019X.025.

.....**Objectives:** The objective of this study was to compare kinetic frictional force of Stainless Steel (SS) Edgewise bracket between .018 slot coupled with .017X.025 SS wire and .022 slot coupled with .019X.025 SS wire in simulated sliding canine movement.

Methods: This in-vitro study was done to measure kinetic frictional force of 96 samples, divided into two bracket slot groups and each of bracket slot groups was divided into four retarding force groups. Kinetic frictional force was measured by ChatillonTM Universal Testing Machine for both bracket slot groups, in simulated sliding canine movement using 0, 50 gr, 100 gr, and 150 gr retarding forces.

Results: Kinetic frictional force was significantly greater for the .018 than .022 bracket slot in the 0, 50 gr, and 100 gr retarding force groups, but it was not significant in the 150 gr retarding force group. Frictional force increased with the increasing of the 50 gr, 100 gr, and 150 gr retarding forces for both bracket slot groups.

Conclusions: Kinetic frictional force of the .018 SS Edgewise bracket slot coupled with .017X.025 SS wire is greater than the .022 bracket slot coupled with .019X.025 SS wire.