Kemampuan adhesi sistem total etch self, etch, dan self adhesive pada sementasi pasak fiber = The adhesion capability of total etch, self etch, and self adhesive in fiber post cementation

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Abstrak

Aplikasi sistem self adhesive pada sementasi pasak fiber sangat mudah dan penggunaanya meningkat pesat, tetapi penelitian mengenai kemampuan adhesinya masih terbatas. Penelitian ini dilakukan untuk menganalisis kemampuan adhesi sistem adhesif self etch dan self adhesive pada sementasi pasak fiber apakah sama besar atau tidak dengan total etch.

Penelitian eksperimental laboratorik dilakukan menggunakan 27 gigi premolar satu mandibula yang telah disetujui oleh komisi etik, dibagi secara acak menjadi 3 kelompok. Pasak fiber disementasi dengan 3 sistem adhesif berbeda. Pada setiap gigi dilakukan pemotongan setebal 5 mm dari bagian servikal ke arah medial akar gigi, seluruh spesimen disimpan selama 24 jam dalam larutan salin pada suhu kamar, lalu dilakukan push out test menggunakan Universal Testing Machine (Shimidzu AG-5000E) dengan kecepatan 0,5 mm/menit.

Hasil analisis univariat dan bivariat Anova satu arah menunjukkan kemampuan adhesi sistem total etch dan self etch sama besar ($p<0.05$), sedangkan sistem self adhesive memiliki kemampuan adhesi yang paling rendah ($p>0.05$). Aplikasi yang lebih mudah pada sistem self etch mampu memberikan kemampuan adhesi yang sama dengan sistem total etch.

<hr>Application of self adhesive system on fiber post cementation is very simple and their use increase rapidly, however study in the adhesion capability is limited and insufficient. The aim of this study was to analyze whether self etch and self adhesive system are comparable to total etch system.

The experimental laboratory study was performed using 27 mandibular premolar teeth approved by ethics committee, randomly divided into 3 groups, fibre post were cemented in 3 different adhesive system. Specimen were prepared 5 mm in thickness from cervical to medial of the root, stored for 24 hours in saline solution at room temperature, push out test was performed using Universal Testing Machine (Shimidzu AG-5000E) with crosshead speed at 0.5 mm/min.

The results of univariat and one way Anova bivariat test showed that total etch and self etch system have a comparable adhesion capability ($p<0.05$), and self adhesive system has the lowest adhesion capability ($p>0.05$). With easier application, self etch system has a comparable adhesion capability to total etch system. Key Word: adhesion capability, fiber post, push out test, total etch, self etch, self adhesive.