ABSTRAK

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Program Studi : Pendidikan Dokter Gigi
Judul : Evaluasi Kebocoran Mikro pada Tumpatan *Glass Ionomer Cement* Konvensional dan *Resin-Modified Glass Ionomer Cement* Kavitas *Site 1- Size 2* Gigi Premolar

Latar Belakang*.** Kebocoran mikro masih menjadi masalah utama dalam bidang kedokteran gigi karena dapat menyebabkan bakteri dan cairan mulut masuk diantara dinding kavitas dan tumpatan. ***Tujuan*.** Mengevaluasi kebocoran mikro pada tumpatan GIC Konvensional dan RMGIC. ***Metode*.** Gigi premolar dipreparasi pada bagian oklusal dengan ukuran 3 x 3 x 2,5 mm, kemudian ditumpat dengan GIC Fuji IX, Fuji II dan Fuji II LC. Kemudian, spesimen direndam dalam akuabides, setelah 24 jam direndam dalam larutan pewarna *methylene blue* 1%, kemudian dipotong melintang arah bukolingual dan diamati di bawah stereomikroskop. ***Hasil Penelitian. Kebocoran mikro paling besar terjadi pada GIC Fuji IX, diikuti dengan Fuji II dan Fuji II LC. ***Kesimpulan*.** Terdapat kebocoran mikro pada tumpatan GIC Konvensional dan RMGIC, dimana derajat kebocoran mikro pada GIC Konvensional lebih besar dibandingkan RMGIC.

Kata kunci: Kebocoran Mikro, *Glass Ionomer Cement* Konvensional, *Resin-Modified Glass Ionomen Cement*

ABSTRACT

Name : Jennifer Fortiana
Study Program : Dentistry
Title : Microleakage Evaluation of Conventional Glass Ionomer Cement and Resin-Modified Glass Ionomer Cement Restoration in Site 1-Size 2 Premolar Teeth Cavity

Background. Microleakage around restoration is still a major problem in clinical dentistry, which can cause the penetration of bacteria and oral fluids between the cavity wall and the restoration. ***Objectives.*** To evaluate the microleakage of Conventional GIC and RMGIC restoration***. Methods***. The premolars were prepared oclusally to a size of 3 x 3 x 2,5 mm dimensions, and were filled with GIC Fuji IX, Fuji II, and Fuji II LC. Then, all specimens were stored in aquabidest, after 24 hours all specimens were immersed in 1 % methylene blue dye, then were sectioned in a buccolingual direction, and inspected under stereomicroscope**. *Results.*** GIC Fuji IX showed maximum leakage followed by Fuji II and Fuji II LC. ***Conclusions.*** The microleakage was evident in Conventional GIC and RMGIC restoration, where the microleakage degree in Conventional GIC were greater than RMGIC.

Keywords: Microleakage, Glass Ionomer Cement, Resin-Modified Glass Ionomer Cement