Perbandingan efektifitas disinfektan sebagai bahan disinfeksi retainer thermoplastic (essix) ditinjau dari hitung koloni bakteri gram positif (Streptococcus mutans) = Comparison efficacy of disinfectans as disinfection material for thermoplastic retainer (essix) measured by gram positive bacterial colony unit count (Streptococcus mutans)

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Abstrak

Pendahuluan: Retainer merupakan alat ortodonti yang bertujuan untuk menjaga stabilitas paska perawatan ortodonti aktif. Retainer thermoplastic sudah banyak digunakan pada saat ini. Pemeliharaan retainer penting untuk menjaga kesehatan rongga mulut.
Tujuan: Penelitian ini bertujuan untuk membandingkan efektifitas penggunaan dua bahan disinfektan sebagai bahan disinfeksi retainer thermoplastic (merek Essix) yang ditinjau dari hitung koloni bakteri gram positif (Streptococcus mutans).
Bahan dan cara: Pada penelitian ini digunakan sebanyak 35 retainer yang terbagi menjadi 3 kelompok perendaman, yakni kelompok kontrol (aquadest) sebanyak 12 retainer, kelompok perendaman obat kumur berbahan dasar Chlorhexidine 1% sebanyak 12 retainer dan kelompok bahan perendam retainer sebanyak 11 retainer. Retainer dipakai selama 15 hari. Dilakukan hitung koloni bakteri sebelum dan sesudah perendaman.
Hasil: Penelitian memperlihatkan terdapat perbedaan bermakna hitung koloni bakteri gram positif (streptococcus mutans) antara retainer yang direndam dengan bahan disinfektan dan tanpa bahan disinfektan. Kedua disinfektan sama efektifnya dalam menurunkan hitung koloni bakteri gram positif pada retainer thermoplastic.
Kesimpulan: Penggunaan bahan disinfektan terbukti efektif menurunkan hitung koloni bakteri gram positif pada retainer thermoplastic.
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Introduction: Retainer is an orthodontic appliance which applied to maintain stability the post- active treatment of orthodontic. Recently, thermoplastic retainer has been widely used. It is important to have retainer maintenance so that a good oral hygiene can be achieved.
Objective: The purpose of this study was to compare the efficacy of two disinfectans used as disinfection material for thermoplastic retainer measured by gram positive bacterial colony unit count, especially streptoccus mutans strain.
Materials and method: There were 35 thermoplastic retainers used in this study which were divided into three soaking groups ; 12 retainers in control group, 12 retainers in mouthwash group which contain Chlorhexidine 0,1% and 11 retainers in denture cleanser tablet group. The retainers were worn for 15 days. The gram positive bacteria were counted at two periods of time which were before and after the retainers were soaked.
Results: This study showed that there were significant difference at bacterial colony count between the retainers which were soaked in disinfectant group and non disinfectant group (control group). Both disinfectants could reduce gram positive bacterial count at thermoplastic retainers.

Conclusions: The use of disinfection material had proven effective in reducing gram positive bacterial count for thermoplastic retainer.