Efek anti bakteri siler bioceramic dan mineral trioxide aggregate terhadap enterococcus faecalis = Antibacterial effect and mineral trioxide aggregate on enterococcus faecalis

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Abstrak

Latar Belakang: E.faecalis isolat klinis merupakan bakteri yang menyebabkan lesi periapeks persisten. Bioceramic dan Mineral Trioxide Aggregate merupakan siler yang mempunyai sifat anti bakteri.
Tujuan: Untuk menganalisis efek anti bakteri siler Bioceramic dan MTA terhadap E.faecalis isolat klinis pada waktu 2 menit segera , 4 jam initial setting , 1 dan 7 hari setelah pengadukan siler.
Metode: Efek anti bakteri siler Bioceramic dan MTA diperiksa dengan direct contact test. Masing-masing siler dikontakkan langsung dengan E.faecalis isolat klinis 2 menit, 4 jam, 1 dan 7 hari setelah pengadukan siler. Suspensi ini dioleskan pada medium agar dan diinkubasi 24 jam untuk melihat koloni bakteri yang tumbuh CFU/ml.
Hasil: Terdapat perbedaan bermakna antara siler Bioceramic dan MTA pada waktu 7 hari, antara siler Bioceramic pada waktu 2 dan 4 jam serta waktu 4 jam dan 7 hari setelah pengadukan siler.
Kesimpulan: siler Bioceramic dan MTA mempunyai efek anti bakteri yang baik terhadap E.faecalis pada saat segera, initial setting, dan 1 hari setelah pengadukan siler, pada waktu 7 hari setelah pengadukan, siler MTA yang paling baik. Siler MTA mempunyai efek anti bakteri yang konstan sampai 7 hari Keywords : Entereococcus faecalis isolat klinis, Siler Bioceramic dan Mineral Trioxide Aggregate MTA

.....Background: E.faecalis isolate clinic is a kind of bacteria that cause persistent periapical lesion. Bioceramic and Mineral Trioxide Aggregate are sealers that having antibacterial properties.
Aim: To analyze antibacterial effect of Bioceramic and MTA sealers against E.faecalis isolate clinic at 2 minutes fresh , 4 hours initial setting , 1 day and 7 day after mixed the sealers.
Methods: Antibacterial effect of Bioceramic and MTA sealers was assessed by direct test contact. Each sealer was contacted with E.faecalis isolate clinic at 2 minutes, 4 hours, 1 day and 7 days after mixed the sealers. This suspension was swab in agar medium and incubated for 24 hours. The colony in agar plates is counted with colony forming unit CFU .
Result: The significant differences was shown by Bioceramic and MTA at 7 days, between Bioceramic at 2 minutes fresh and 4 hours initial setting also at 4 hours initial setting and 7 days after mixed the sealer.
Conclusion: Both of Bioceramic and MTA sealers have a good antibacterial effect at fresh, initial setting and 1 hour after mixed the sealer but at 7 days, MTA was the greater. MTA sealer has a constant antibacterial effect until 7 days.