

## Efektifitas berbagai metode sterilisasi molar band yang terkontaminasi pasca proses fitting band (uji hitung bakteri) = Effectiveness of various sterilization methods of contaminated post- fitted molar band

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### Abstrak

**Pendahuluan :** Penelitian ini bertujuan untuk mengetahui perbedaan jumlah bakteri pada molar band pasca fitting band setelah sterilisasi dry heat oven dan steam autoclave yang sebelumnya telah dilakukan pre-sterilisasi alkohol dan ultrasonic cleaning bath.

**Material dan metode :** Empat molar band yang telah melalui proses fitting band pada pasien, dua band yang sebelumnya telah dilakukan pre-sterilisasi alkohol, satu band disterilkan dengan dry heat oven dan satu band dengan steam autoclave. Dua band berikutnya dilakukan pre-sterilisasi ultrasonic cleaning bath, masing-masing dilanjutkan dengan sterilisasi dry heat oven dan steam autoclave. Molar band dimasukkan ke dalam phosphatebuffered saline, dengan micropipette cairan diambil dan dituangkan ke cawan petri yang berisi Brain Heart Infusion. Kemudian dimasukkan ke dalam inkubator selama 24 jam dan dihitung jumlah bakterinya.

**Hasil :** Terdapat perbedaan jumlah bakteri yang bermakna antara beberapa kelompok metode sterilisasi dan terdapat satu kelompok dengan perbedaan tidak bermakna, yaitu kelompok alkohol-steam autoclave dengan ultrasonic cleaning bath-steam autoclave.

**Kesimpulan :** Hasil penelitian menunjukkan bahwa steam autoclave merupakan metode sterilisasi yang terbaik karena memberikan hasil dengan jumlah bakteri yang paling minimal pada molar band yang telah melalui proses fitting band.

.....**Introduction :** This research objective is to determine the amount of bacteria in molar band post fitting band in patients, after undergone pre-sterilization by alcohol and ultrasonic cleaning bath followed with sterilization by dry heat oven and steam autoclave.

**Material and methods :** Four molar bands which already fitted to patients then divided into two groups. The first group of two bands were pre-sterilized by alcohol. One of the band was, then, sterilized by dry heat oven. And, the other band was sterilized by steam autoclave. The second group of two bands were pre-sterilized by ultrasonic cleaning bath. One of the band was then sterilized by dry heat oven and the other was sterilized by steam autoclave. The next step was to immerse all of the bands in phosphate-buffered saline solution. With micropipette, the solution was retrieved and dropped upon a petri dish containing brain heart infusion. The dish was then stored in an incubator for 24 hours prior to account the number of bacteria available.

**Result :** There is a profound difference in numbers of bacteria between methods of sterilization. And, there is a non significant difference between two groups which are alcoholsteam autoclave group and ultrasonic cleaning bath-steam autoclave.

**Conclusion :** The result pf research reveals that steam autoclave is the best method of sterilization which has the minimal amount of bacteria in post fitted molar band.