

## INTISARI

Penggunaan benang bedah adsorbable pada operasi bedah dentoalveolar tidak memerlukan prosedur pengambilan benang pasca operasi. Benang bedah *absorbable* monofilamen yang sering dijumpai dokter gigi adalah *catgut chromic* dan *poliglecaprone 25 (monocryl)*. Bakteri oportunistik *S. aureus* merupakan penyebab utama dalam infeksi luka operasi. Penelitian ini bertujuan untuk mengetahui perbedaan jumlah perlekatan *Staphylococcus aureus* terhadap permukaan benang *absorbable catgut chromic* dan *poliglecaprone*.

Penelitian eksperimental laboratorium *in vitro* ini dilakukan dengan perendaman benang bedah *catgut chromic* dan *polyglecaprone* dalam larutan suspensi, saliva dan media kaldu selama tiga hari. Perhitungan jumlah bakteri yang melekat pada masing-masing sampel benang dilakukan dengan metode *standard plate count*. Pengamatan sampel benang bedah secara mikroskopis dilakukan menggunakan *scanning electron microscope*. Penelitian ini menggunakan uji *Independent T-test* dengan tingkat signifikansi 95%. Hasil penelitian menunjukkan terdapat perbedaan jumlah bakteri *S. aureus* yang melekat terhadap permukaan benang bedah *catgut chromic* dan *poliglecaprone*. Jumlah perlekatan *Staphylococcus aureus* terhadap permukaan benang *catgut chromic* lebih banyak dibandingkan benang bedah *poliglecaprone*.

**Kata Kunci :** Benang Bedah, *Staphylococcus aureus*, *Catgut chromic*, *Poliglecaprone 25*

### ***ABSTRACT***

The use of adsorbable sutures in dentoalveolar surgery does not require a postoperative suture removal procedure. The widely used monofilament absorbable threads by dentists are chromic catgut and polyglecaprone 25 (monocryl). The opportunistic bacterium *Staphylococcus aureus* is the main reason of surgical site infection. The purpose of this study is to compare the number of *S.aureus* attachments to the surface of chromic and polyglecaprone catgut threads.

In this in vitro laboratory experiment, surgical sutures made of catgut chromic and polyglecaprone were immersed in broth, saliva, and suspension for three days before the number of bacteria adhered to each thread sample was determined using the conventional plate count method. Examination of surgical thread samples using a scanning electron microscope (SEM) at the microscopic level. The Independent T-test with a 95% level of significance was utilized in this study. This study shows that there were differences in the number of *S. aureus* bacteria attached to the surface of chromic catgut and polyglecaprone surgical sutures. The number of attachments of *Staphylococcus aureus* to the surface of the chromic catgut thread is greater than that of the polyglecaprone surgical thread.

**Keywords** : Suture Material, *Staphylococcus aureus*, Catgut chromic, Poliglecaprone 25