

ABSTRAK

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Program Studi : Kedokteran Gigi
Judul KTI : Uji Daya Hambat Ekstrak Daun Kersen (*Muntingia calabura*) sebagai Antibakteri terhadap Bakteri *Streptococcus sanguinis*
Pembimbing : drg. Ira Anggar Kusuma, M.Si.
Prof. Dr. drg. Oedijani Santoso, M.S.

Latar Belakang: Hasil Survei Kesehatan Indonesia (SKI) 2023 oleh Kemenkes RI menunjukkan prevalensi karies gigi mencapai 82,8%, yang disebabkan oleh pembentukan plak gigi. Plak gigi diawali oleh bakteri primer seperti *Streptococcus sanguinis* membentuk biofilm matang melalui koagregasi dengan bakteri kariogenik seperti *Streptococcus mutans*. Kontrol plak menggunakan obat kumur klorheksidin 0,2% dapat menimbulkan efek samping. Keanekaragaman hayati di Indonesia berpotensi sebagai alternatif kontrol plak berbahan herbal, seperti ekstrak daun kersen (*Muntingia calabura*). **Tujuan:** Mengetahui aktivitas antibakteri ekstrak daun kersen (*Muntingia calabura*) dalam menghambat pertumbuhan bakteri *Streptococcus sanguinis*. **Metode:** Penelitian laboratoris *in vitro* dengan *post-test only control group design*. Besar sampel sebanyak 28 sampel, terdiri dari K+ (klorheksidin glukonat 0,2%), K- (akuades), serta kelompok perlakuan yaitu ekstrak daun kersen (*Muntingia calabura*) P1 (6,25%), P2 (12,5%), P3 (25%), P4 (50%), dan P5 (100%). Uji daya hambat dengan metode dilusi agar berdasarkan pengamatan visual tumbuh atau tidak tumbuh bakteri *Streptococcus sanguinis*. Data dianalisis menggunakan uji *Cramer's V* dan *Fisher's Exact*. **Hasil:** Ekstrak daun kersen (*Muntingia calabura*) P3 (25%), P4 (50%), dan P5 (100%) tidak menunjukkan pertumbuhan bakteri serupa dengan hasil K+ dan berbeda signifikan dengan K-, dengan nilai KHM pada konsentrasi 25%. **Kesimpulan:** Terdapat efektivitas antibakteri ekstrak daun kersen (*Muntingia calabura*) terhadap pertumbuhan *Streptococcus sanguinis* pada konsentrasi 25%.

Kata Kunci: *Muntingia calabura*, antibakteri, dilusi agar, *Streptococcus sanguinis*

ABSTRACT

Name : Farilla Putri Salsabilla
Study Program : Dentistry
Title : Antibacterial Activity Test of Cherry Leaf Extract (*Muntingia calabura*)
against *Streptococcus sanguinis* Bacteria
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Background: The results of the 2023 Indonesian Health Survey (SKI) conducted by the Indonesian Ministry of Health show that the prevalence of dental caries has reached 82.8%, caused by the formation of dental plaque. Dental plaque begins with primary bacteria such as *Streptococcus sanguinis*, which form a mature biofilm through coaggregation with caries bacteria such as *Streptococcus mutans*. Plaque control using 0.2% chlorhexidine mouthwash can cause side effects. Indonesia's biodiversity has the potential to provide herbal alternatives for plaque control, such as cherry leaf extract (*Muntingia calabura*). **Objective:** To determine the antibacterial activity of cherry leaf extract (*Muntingia calabura*) in inhibiting the growth of *Streptococcus sanguinis* bacteria. **Methods:** An in vitro laboratory study with a post-test control group design. The sample size was 28 samples, consisting of K+ (0.2% chlorhexidine gluconate), K- (distilled water), and treatment groups, namely cherry leaf extract (*Muntingia calabura*) P1 (6.25%), P2 (12.5%), P3 (25%), P4 (50%), and P5 (100%). The test was conducted using the agar dilution method, based on visual observation of the growth or absence of *Streptococcus sanguinis* bacteria. The data were analysed using Cramer's V test and Fisher's Exact test. **Results:** Cherry leaf extract (*Muntingia calabura*) P3 (25%), P4 (50%), and P5 (100%) showed no bacterial growth, similar to the results of K+, and significantly different from K-, with an MIC value at a concentration of 25%. **Conclusion:** Cherry leaf extract (*Muntingia calabura*) has antibacterial efficacy against the growth of *Streptococcus sanguinis* at a concentration of 25%.

Keywords: *Muntingia calabura*, antibacterial, agar dilution, *Streptococcus sanguinis*