

ABSTRAK

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Program Studi : Kedokteran Gigi
Judul : Perbedaan Efektivitas Larutan Ekstrak Cengkeh
(*Syzygium aromaticum*) 1%, 3%, 5% Terhadap Kadar
Volatile Sulfur Compounds (VSCs) di Dalam Rongga
Mulut.

Halitosis dibentuk oleh gas yaitu *Volatile Sulfur Compounds* (VSCs). Terapi halitosis dapat dilakukan dalam dua cara, yakni secara mekanis dan secara kimiawi seperti penggunaan obat kumur. Pada penelitian ini menggunakan obat kumur herbal yaitu ekstrak daun cengkeh. Tujuan penelitian ini untuk mengetahui efektivitas larutan dengan ekstrak daun cengkeh 1%, 3%, dan 5% terhadap kadar *Volatile Sulfur Compounds* (VSCs) dan tinjauannya dari sisi Islam. Penelitian dilakukan terhadap 33 mahasiswa dan mahasiswi Fakultas Kedokteran Gigi Universitas Yarsi. Masing-masing individu memakan durian sebanyak tiga gram untuk merangsang halitosis, kemudian diberi lima perlakuan, yaitu berkumur dengan larutan ekstrak daun cengkeh 1%, 3%, 5%, dengan pembandingan kontrol positif (*Chlorhexidine gluconate* 0,1%) dan kontrol negatif (larutan tanpa ekstrak). Pada setiap tahap, nafas subjek diukur menggunakan Tanita *Breath Checker*© dengan interpretasi skala nol sampai lima. Pengukuran dilakukan tiga kali yaitu sesaat setelah kumur, lima menit setelah kumur, dan sepuluh menit setelah kumur. Hasil Uji *Kruskal-Wallis* menunjukkan adanya efektivitas pada larutan ekstrak cengkeh 1%, 3%, 5%, kontrol positif dan kontrol negatif dalam menurunkan kadar VSCs. Uji *Kruskal-Wallis* juga menunjukkan berkumur dengan larutan ekstrak daun cengkeh 3% memiliki hasil paling efektif dalam penurunan kadar VSCs. Sedangkan Uji *Mann-Whitney* menunjukkan terdapat perbedaan bermakna pada kelima perlakuan. Kesimpulan penelitian ini bahwa berkumur dengan ekstrak daun cengkeh memiliki kemampuan menurunkan kadar VSCs. Obat kumur ekstrak cengkeh bermanfaat dan diperbolehkan penggunaannya karena Allah menciptakan sesuatu berdasarkan ukuran tertentu seperti yang telah dijelaskan dalam Al-Qur'an yakni QS Al-Qamar (54): 49.

Kata kunci: Ekstrak cengkeh, Halitosis, *Volatile Sulfur Compounds* (VSCs).

ABSTRACT

Name : Badzlina Nur Shabrina
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Title : Differences in Effectiveness of Clove Extract Solutions
(*Syzygium aromaticum*) 1%, 3%, 5% Towards
Volatile Sulfur Compounds (VSCs) in Mouth Cavity.

Halitosis is formed by gas namely *Volatile Sulfur Compounds* (VSCs). Halitosis therapy can be done in two ways, namely mechanically and chemically such as the use of mouthwash. In this study using herbal mouthwash which is clove leaf extract. The purpose of this study was to determine the effectiveness of the solution with 1%, 3%, and 5% clove leaf extract on the levels of *Volatile Sulfur Compounds* (VSCs) and its review from the Islamic side. The study was conducted on 33 students of the Faculty of Dentistry, Yarsi University. Each individual takes three grams of durian to stimulate halitosis, then given five treatments, namely gargling with clove leaf extract solution 1%, 3%, 5%, with a comparison of positive control (*Chlorhexidine gluconate* 0.1%) and negative control (solution without extract). At each stage, the subject's breath was measured using Tanita *Breath Checker* © with a interpretation of a scale of zero to five. Measurements were made three times namely immediately after rinsing, five minutes after rinsing, and ten minutes after rinsing. *Kruskal-Wallis* test results showed the effectiveness of clove extract solution of 1%, 3%, 5%, positive control and negative control in reducing levels of VSCs. The *Kruskal-Wallis* test also showed that gargling with 3% clove leaf extract solution had the most effective results in decreasing levels of VSCs. While the Mann-Whitney Test showed that there were significant differences in the five treatments. The conclusion of this study is that gargling with clove leaf extract has the ability to reduce levels of VSCs. Clove extract mouthwash is useful and permissible for its use because Allah created something based on a certain size as explained in the Qur'an which is QS Al-Qamar (54): 49.

Keywords: Clove leaf extract; Halitosis; *Volatile sulfur compounds* (VSCs).