

INTISARI

Agustini. 2019. Pengaruh Pemberian Ekstrak Etanol Biji Adas (*Foeniculum Vulgare*, Mill) terhadap Persentase Limfosit, Gambaran Histopatologi Limpa dan Usus pada Mencit *Balb/C* yang Terpapar Bakteri *Salmonella Typhi*. Program Studi D-IV Analisis Kesehatan, Fakultas Ilmu Kesehatan, Universitas Setia Budi.

Biji adas (*Foeniculum vulgare*, Mill) mengandung flavonoid, saponin, tanin dan minyak atsiri. Kandungan senyawa biji adas berpotensi sebagai imunostimulan. Flavonoid berpotensi meningkatkan aktivitas proliferasi limfosit, saponin meningkatkan aktivitas limfosit, dan minyak atsiri sebagai antimikroba bakteri patogen. Penelitian ini bertujuan untuk melihat pengaruh ekstrak biji adas (*Foeniculum vulgare*, Mill) terhadap persentase limfosit, gambaran histopatologi limpa dan usus halus mencit *Balb/C* yang diinfeksi bakteri *Salmonella typhi*.

Penelitian ini menggunakan metode eksperimental dengan desain *post test only control group design* secara *in vivo*. Ekstrak biji adas diperoleh dengan proses sokhletasi. Penelitian ini menggunakan 30 ekor mencit *Balb/C*, yang terbagi atas 5 kelompok dan setiap kelompok terdiri atas 6 mencit. Kelompok I diberikan CMC 0,5%, kelompok II diinduksi bakteri *Salmonella typhi*. Kelompok perlakuan III-V diberikan ekstrak biji adas (*Foeniculum vulgare*, Mill) dengan variasi dosis 250, 500, dan 750 mg/kg BB.

Hasil penelitian ini menunjukkan bahwa pemberian ekstrak etanol biji adas (*Foeniculum vulgare*, Mill) berpengaruh terhadap persentase limfosit dengan dosis efektif 750 mg/kg BB dibanding dosis 250 dan 500 mg/kg BB. Pengamatan histopatologi menunjukkan ekstrak biji adas relatif berpengaruh dalam memperbaiki gambaran histopatologi limpa mencit *Balb/C* yang diinduksi *Salmonella typhi* dan relatif berpengaruh memperbaiki gambaran histopatologi usus halus mencit *Balb/C* namun perbaikan belum maksimal pada hari ke 28.

Kata kunci: Persentase limfosit, ekstrak biji adas, histopatologi, limpa, usus halus.

ABSTRACT

Agustini. 2019. The Effect Of Ethanol Extract of Fennel Seeds (*Foeniculum vulgare*, Mill) on the Percentage of Lymphocytes, Histopathology Picture of Spleen and Intestine in *Balb/C* Mice Exposed to *Salmonella Typhi* Bacteria. Bachelor of Applied Sciences in Medical Laboratory Technology Program, Health Science Faculty, Setia Budi University.

Fennel seeds (*Foeniculum vulgare*, Mill) contain flavonoids, saponins, tannins and essential oils. The content of fennel seed compounds can potentially be an immunostimulant. Flavonoids are potential to increase lymphocyte proliferation activity, saponins can increase lymphocyte activity, and essential oils can be antimicrobial pathogenic bacteria. The objective of this research was find out the effect of fennel seed extract (*Foeniculum vulgare*, Mill) on the percentage of lymphocytes, histopathological features of the spleen and small intestine of *Balb/C* mouse infected by *Salmonella typhi* bacteria.

This research used an experimental method with a post test only control group design in vivo. Fennel seed extract was obtained by conducting sokhletation process. This research used 30 *Balb/C* mice, which were divided into 5 groups and each group consisted of 6 mice. Group I was given 0.5% CMC, group II was induced by *Salmonella typhi* bacteria. The III-V treatment group was given fennel seed extract (*Foeniculum vulgare*, Mill) with varying doses of 250, 500, and 750 mg/kg body weight.

The results of the research how that the ethanol extract of fennel seeds (*Foeniculum vulgare*, Mill) influences the percentage of lymphocytes with an effective dose of 750 mg/kg body weight compared to doses of 250 and 500 mg/kg body weight. Histopathological observation shows that fennel seed extract is relatively influential in improving the histopathological picture of *Balb/C* mice's spleen that were induced by *Salmonella typhi* and relatively influential in improving the histopathological picture of *Balb/C* mice's small intestine. However, the improvement is not maximal on day 28.

Keywords: Lymphocytes percentage, fennel seed extract, histopathology, spleen, small intestine.