

ABSTRAK

AKTIVITAS GASTROPROTEKTOR LENDIR OKRA (*Abelmoschus esculentus*) PADA TIKUS WISTAR YANG DIINDUKSI ASETOSAL

Magdalena Novia Devina Putri
15/377761/KH/08484

Ulser lambung terjadi karena ketidakseimbangan faktor *cytoprotective* dan faktor *cytodestructive* akibat dari efek terapeutik penggunaan Obat Anti Inflamasi Non Steroid (OAINS). Obat herbal sering digunakan untuk mengobati ulser lambung salah satunya adalah okra (*Abelmoschus esculentus*) yang dikenal memiliki aktivitas gastroprotektor dengan kandungan *quercetin* dan *tannin* yang memiliki efek kuat terhadap regenerasi mukosa gastrointestinal. Penelitian ini bertujuan untuk mengetahui konsentrasi lendir okra yang efektif untuk memberikan aktivitas gastroprotektif pada tikus Wistar yang diinduksi asetosal.

Penelitian ini menggunakan 20 ekor tikus Wistar yang dipilih secara acak dan dibagi menjadi empat kelompok, yaitu kelompok I sebagai kontrol positif diberikan CMC-Na 0,3% dan kelompok II -IV diberikan lendir okra dengan konsentrasi berturut-turut 10%, 20%, dan 40%. Tikus Wistar yang sudah dipuasakan selama 24 jam, diberikan perlakuan berupa induksi lendir okra secara peroral sesuai dengan konsentrasi kelompoknya sebanyak 1,5 ml. Satu jam setelahnya, tikus diinduksi asetosal dosis 1500 mg/kgBB dengan konsentrasi 5% sebanyak 3,5 ml. Setelah tikus didiamkan selama empat jam, tikus nekropsi dan diambil lambungnya untuk diamati perubahan berupa pembentukan ulser atau hemorhagi. Aktivitas gastroprotektor dievaluasi dengan skoring kemudian dihitung indeks ulser dan daya pencegahannya serta dianalisis dengan uji *One-Way Anova*.

Hasil penelitian menunjukkan indeks ulser terbesar pada kontrol positif sebesar 11,3. Sedangkan konsentrasi 10% dan 20% adalah 3,2, dan konsentrasi 40% sebesar 4. Daya pencegahan terbesar pada konsentrasi 10% dan 20% yaitu 71,68% sedangkan konsentrasi 40% sebesar 64,60%. Hasil uji *One-Way Anova* menunjukkan kontrol positif memiliki perbedaan signifikan ($P < 0,05$) pada jumlah ulser yang terbentuk dan konsentrasi 40% berbeda secara signifikan ($P < 0,05$) pada jumlah hemorhagi yang terbentuk. Konsentrasi lendir okra yang efektif memberikan aktivitas gastroprotektor adalah 10% dan 20%.

Kata kunci : asetosal, gastroprotektor, lendir okra, tikus Wistar, ulser lambung

ABSTRACT

GASTROPROTECTOR ACTIVITY OF OKRA MUCUS (*Abelmoschus esculentus*) IN ASETOSAL-INDUCED WISTAR RATS

Magdalena Novia Devina Putri

15/377761/KH/08484

Gastric ulcers occur due to imbalance of cytoprotective and cytodestructive factors resulting from the therapeutic effect of the use of Non Steroid Anti Inflammantory Drug (NSAIDs). Herbal medicine are often used to treat gastric ulcers, one of which is okra (*Abelmoschus esculentus*) which is known to have gastroprotector activity with *quercetin* and *tannin*. These coumpounds have a strong effect on regeneration of gastrointestinal mucosa. This study's aim was to determine the effective concentration of okra mucus to provide gastroprotective activity in acetosal-induced Wistar rats.

This research used 20 Wistar rats that were randomly selected and divided into 4 groups; group 1 as a positive control was given CMC-Na 0,3%, and group II-IV were administered with okra mucus with concentrations of 10%, 20%, and 40%. Wistar rats, which have been fasted for 24 hours, were given treatment in the form of oral induction of okra mucus as much as 1.5 ml with concentration according to their group. One hour later, rats were induced with acetosal at a dose of 1500 mg/kgBW with a concentration of 5% as much as 3.5 ml. After the rats were left alone for four hours, rats were necropted and their stomachs were taken to be observed for the changes in the form of ulcer formation or hemorrhage. The gastroprotector activity was evaluated by scoring, then the ulcer index and percentage protection were calculated and analyzed with One Way AnTva test.

The result showed that the largest ulcer index was in positive control, which was 11.3; while the index in concentration group of 10% and 20% was 3.2 and in concentration group of 40% was 4. The biggest percentage protection was in the concentration group of 10% and 20% which was 71,68%, while in the concentration group of 40% was 64.60%. The One-Way Anova test result showed that positive control had a significant difference ($P<0,05$) on the number of ulcers formed and the okra mucus concentration of 40% differed significantly ($P<0.05$) on the number of hemorrhages formed. The concentrations of okra mucus which effectively provide gastroprotector activity were 10% and 20%.

Keywords: acetosal, gastric ulcers, gastroprotector, mucus okra, Wistar rats.