

ABSTRACT

Background: According to the 2018 Basic Health Research Data, the prevalence of hypercholesterolemia in Indonesia is still very high. Soursop leaves contain active substances flavonoids, saponins, and tannins which are believed to be able to be used to lower blood cholesterol levels. The purpose of this study was to determine the effect of giving *ethanol* extract of soursop leaves (*Annona muricata*.) On cholesterol levels of white rats (*Rattus novergicus*) *Hypercholesterolemia*.

Method: This study used a quantitative analysis research type *True Experimental* using the *Randomized Pre Test- Post test Control Group Design* using White Rats (*Rattus Norvegicus*) strain *Sprague Dawley* as experimental animals aged 3-6 months, weighing 200-250 grams which were made into 6 groups, namely the basal group, positive treatment group, B, C, D and E were given a high-fat diet, and ethanol extract of soursop leaves at a dose of 100 mg / ml of young and old soursop leaves, 200 mg / ml of young and old. The treatment was carried out for 14 days. Blood cholesterol levels were examined 3 times, namely at the beginning, after induction of a high-fat diet and after administration of the extract. Data were analyzed statistically using the One-way ANOVA test.

Results: From the results of the paired t-test, there was a decrease in blood cholesterol levels in the treatment group ($p < 0.05$). The most significant decrease in cholesterol levels was in treatment group D.

Conclusion: From the research results, it was concluded that administration of *ethanol* extract of soursop leaves (*Annona muricata*.) had an effect on reducing blood cholesterol levels in white rats (*Rattus novergicus*) of the *Sprague Dawley* strain.

Keywords: Soursop leaves (*Annona muricata*.), *Hypercholesterolemia*, Decrease in blood cholesterol levels, white rats (*Rattus novergicus*).

ABSTRAK

Latar Belakang : Menurut Data Riset Kesehatan Dasar tahun 2018, prevalensi hiperkolesterolemia di Indonesia masih sangat tinggi. Daun sirsak mengandung zat aktif flavonoid, saponin, dan tanin dipercaya dapat digunakan untuk menurunkan kadar kolesterol darah. Tujuan penelitian ini adalah untuk mengetahui pengaruh pemberian ekstrak *etanol* daun sirsak (*Annona muricata*.) terhadap kadar kolesterol tikus putih (*Rattus norvegicus*) *Hiperkolesterolemia*.

Metode : Penelitian ini menggunakan jenis penelitian analisis kuantitatif *True Experimental* dengan menggunakan rancangan *The Randomized Pre Test- Post test Contol Group Design* dengan menggunakan Tikus Putih (*Rattus Norvegicus*) strain *Sprague Dawley* sebagai hewan percobaan berumur 3-6 bulan, berat badan 200-250 gram yang dibuat menjadi 6 kelompok yaitu kelompok basal, kelompok perlakuan positif, B, C, D dan E diberikan diet tinggi lemak, dan ekstrak *etanol* daun sirsak dosis 100 mg/ml daun sirsak muda dan tua, 200 mg/ml muda dan tua. Perlakuan dilakukan selama 14 hari. Pemeriksaan kadar kolesterol darah diperiksa sebanyak 3 kali, yaitu di awal, setelah induksi diet tinggi lemak dan setelah pemberian ekstrak. Data dianalisis secara statistik menggunakan Uji one-way ANOVA.

Hasil : Dari hasil uji *paired t-test* adanya penurunan kadar kolesterol darah pada kelompok perlakuan ($p < 0,05$). Penurunan kadar kolesterol yang paling signifikan terdapat pada kelompok perlakuan D.

Kesimpulan : Dari hasil penelitian disimpulkan bahwa pemberian ekstrak *etanol* daun sirsak (*Annona muricata*.) berpengaruh terhadap penurunan kadar kolesterol darah tikus putih (*Rattus norvegicus*) galur strain *Sprague Dawley*.

Kata Kunci : Daun sirsak (*Annona muricata*.), *Hiperkolesterolemia*, Penurunan kadar kolesterol darah, tikus putih (*Rattus norvegicus*).