

ABSTRAK

Salah satu penyebab penyakit kardiovaskuler yang merupakan penyakit mematikan adalah kolesterol dan telah menjadi masalah serius di negara maju maupun berkembang. Tidak hanya pemakaian obat untuk menanggulangi permasalahan kolesterol di darah yang tinggi, masyarakat pula sudah mulai memakai bahan-bahan alami untuk mengurangi kadar kolestrol darah salah satunya daun Cep-cepan (*Castanopsis costata* (Blume) A.DC). Kandungan flavonoid yang terdapat pada *C. costata* dapat menghambat aktivitas enzim 3-hidroksi-3-meti-glutaril-CoA yang menyebabkan penghambatan sintesis kolesterol. Senyawa aktif yang terdapat pada ekstrak etanol daun *C. costata* terdiri dari fenolik, alkaloid, flavonoid, saponin, tanin, triterpenoid/Steroid dan glikosida antrakuinon. Penelitian ini dilakukan untuk menguji pengaruh pemberian ekstrak etanol daun *C. costata* terhadap penurunan kadar kolesterol total pada tikus jantan galur wistar yang diinduksi PTU 1,8 mg/kgBB dilarutkan dalam PGA 1%, dan kuning telur 10ml/kgBB selama 15 hari terhadap semua kelompok perlakuan kecuali kontrol normal. Kemudian tikus diberi ekstrak etanol daun *C. costata* (kelompok uji dosis 25 mg/kgBB, 50 mg/kgBB, 100 mg/kgBB, 200 mg/kgBB) dan simvastatin (kelompok kontrol positif) selama 15 hari. Kadar kolesterol darah tikus diukur sebanyak tiga kali, kadar kolesterol sebelum pemberian pakan hiperlipidemia (hari ke-0), kadar kolesterol setelah pemberian pakan hiperlipidemia (hari ke-15), dan kadar kolesterol setelah pemberian ekstrak uji (hari ke-30). Kadar kolesterol darah tikus diukur dengan metode CHOD-PAP (*Cholesterol Oxidase Phenol Aminoantipyrin*) atau metode enzimatik menggunakan fotometer pada panjang gelombang 546 nm. Hasil penelitian menunjukkan adanya aktivitas penurunan kolesterol total pada setiap kelompok hewan uji, penurunan kadar kolesterol total tertinggi terjadi pada dosis 200 mg/kgBB sebesar 67,94%.

Kata kunci : Daun cep-cepan (*Castanopsis costata* (Blume) A.DC), Kolesterol Total, CHOD-PAP

ABSTRACT

One of the causes of cardiovascular disease which is a deadly disease is cholesterol and has become a serious problem in both developed and developing countries. Not only the use of drugs to overcome the problem of high blood cholesterol, people have also started using natural ingredients to reduce blood cholesterol levels, one of which is Cep-cepan (*Castanopsis costata* (Blume) A.DC) leaves. The content of flavonoids in *C. costata* can inhibit the activity of the enzyme 3-hydroxy-3-methylglutaryl-CoA which causes inhibition of cholesterol synthesis. The active compounds contained in the ethanolic extract of *C. costata* leaves consist of phenolics, alkaloids, flavonoids, saponins, tannins, triterpenoids/steroids and anthraquinone glycosides. This study was conducted to examine the effect of giving ethanol extract of *C. costata* leaves to decrease total cholesterol levels in male Wistar strain rats induced by PTU 1.8 mg/kgBW dissolved in 1% PGA, and 10ml/kgBW egg yolk for 15 days for all groups. treatment except normal controls. Then the rats were given ethanolic extract of *C. costata* leaves (test group dose 25 mg/kgBW, 50 mg/kgBW, 100 mg/kgBW, 200 mg/kgBW) and simvastatin (positive control group) for 15 days. Blood cholesterol levels of rats were measured three times, cholesterol levels before feeding hyperlipidemia (day 0), cholesterol levels after feeding hyperlipidemia (day 15), and cholesterol levels after giving the test extract (day 30). Blood cholesterol levels of rats were measured using the CHOD-PAP (*Cholesterol Oxidase Phenol Aminoantipyrin*) method or the enzymatic method using a photometer at a wavelength of 546 nm. The results showed that there was activity in reducing total cholesterol in each group of test animals, the highest decrease in total cholesterol levels occurred at a dose of 200 mg/kgBW of 67.94%.

Key words : Leaf cep-cepan (*Castanopsis costata* (Blume) A.DC), Total Cholesterol, CHOD-PAP