

Pengaruh ekstrak buah garcinia atroviridis terhadap kadar kolesterol total tikus galur wistar yang diberi asupan lemak berlebih = The effect of garcinia atroviridis fruit extract on total cholesterol level of wistar strain rats with high fat diet

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Abstrak

Asam gelugur atau *Garcinia atroviridis* mengandung bahan aktif flavonoid dan asam hidroksisitat yang dilaporkan memiliki aktivitas hipolipidemik. Penelitian dilakukan untuk mengetahui efek ekstrak kulit dan buah *G atroviridis* terhadap kadar kolesterol total darah pada tikus galur Wistar yang diberi asupan tinggi lemak. Dua puluh lima ekor tikus galur Wistar betina dibagi menjadi lima kelompok perlakuan secara acak. Dua kelompok pertama adalah kelompok kontrol dan kelompok percobaan induksi peningkatan kadar kolesterol total dengan pemberian asupan lemak berlebih selama 21 hari. Tiga kelompok lainnya adalah kelompok uji dosis yaitu tikus diberikan tambahan asupan tinggi lemak selama 21 hari pertama. Kemudian 21 hari berikutnya tikus diberikan asupan ekstrak *G atroviridis* sambil mempertahankan asupan tinggi lemak. Setelah perlakuan selesai sampel darah tikus diambil untuk pemeriksaan kadar kolesterol totalnya. Kemudian dilakukan uji statistik terhadap hasil yang didapat. Kadar kolesterol total kelompok uji dosis 20 mg lebih rendah secara signifikan dibandingkan kelompok uji dosis 10 mg dan 30 mg. Sedangkan kelompok uji dosis 10 mg tidak berbeda bermakna terhadap kelompok uji dosis 30 mg. Penelitian ini menunjukkan bahwa asupan *G atroviridis* dapat menurunkan kadar kolesterol total darah. Peningkatan dosis ekstrak tidak selalu meningkatkan efektivitas penurunan kadar kolesterol total.

Asam gelugur or Garcinia atroviridis contains active ingredients such as flavonoids and hydroxycitric acid which have been reported to have a hypolipidemic activity. This experiment was conducted to examine the effect of G atroviridis fruit and skin extract on total cholesterol level of rats fed a high fat diet. Twenty five female Wistar rats were randomly divided into five groups. The first two groups are the control group and hyperlipidemia induction group fed with high fat diet for 21 days. The rest three groups are dose trials in which rats were fed with high fat diet for the first 21 days. And for the next 21 days rats were given G atroviridis extract in three different doses which were 10 mg, 20 mg and 30 mg while maintaining high fat diet. After all the interventions were done blood samples were obtained for laboratory analysis. The results are processed using Post Hoc test. Total cholesterol of G atroviridis extract 20 mg dose trial group showed significantly lower results compared with 10 mg and 30 mg dose group. However results from 10 mg dose group are not significantly different compared with 30 mg dose group. This study has shown that dietary intake of G atroviridis may decrease total cholesterol level. Increased dose of G atroviridis extract does not guarantee an increase in effectiveness of decreasing total cholesterol level.