



Anti-hyperlipidemic effect of *Allium ampeloprasum* ethanol extract in rats

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Background and objectives: This study was designed to investigate the effect of ethanol extract of *Allium ampeloprasum* (Leek) leaves on blood lipid profile in rats. Due to the side effects of chemical drugs and social tendency toward herbal medicines, it's justified to propose new herbal remedies for prevention of cardiovascular disease. **Methods:** Thirty six adult male Wistar rats were used and divided into 6 groups. After induction of hyperlipidemia, group I was fed with a normal diet, group II (control) with high cholesterol diet (containing 5% cholesterol and 5% olive oil), group III was fed with high cholesterol diet and lovastatin (10 mg/kg), group IV with high cholesterol diet and leek extract (50 mg/kg), group V received high cholesterol diet and *Allium ampeloprasum* (leek extract) 100 mg/kg and group VI was fed with high cholesterol diet and leek extract (250 mg/kg) for 21 consecutive days through gavage. Serum cholesterol concentration, LDL, TG, HDL and ratios of CHO/HDL and LDL/HDL for each animal were analyzed by laboratory kits. **Results:** The regimen containing 50 mg/kg of extract resulted in a significant reduction in CHO levels (57.00 ± 2.25 mg/dL vs. 107.80 ± 3.54 mg/dL), LDL (22.00 ± 2.07 mg/dL vs. 35.80 ± 1.98 mg/dL) and CHO/HDL (1.44 ± 0.07 mg/dL vs. 2.55 ± 0.06 mg/dL) compared to the control group ($p < 0.05$); while there was no significant changes in TG level and HDL compared with the control group ($p > 0.05$). **Conclusion:** The results showed that ethanol extract of *A. ampeloprasum* could improve lipid profile comparable with lovastatin in rats. It was also conclude that 50 mg/kg dose of the extract showed the highest efficacy.

Keywords: *Allium ampeloprasum*, blood lipid profile, cholesterol, lovastatin
