

Effects of water extract of garlic on cholesterol transporter in the intestine of obese mice

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Garlic is one of the famous herbal plants which have showed beneficial properties on atherosclerosis risk factors. Some components of garlic suppress cholesterol and triglyceride biosynthesis and its absorption, resulting in lowering of serum cholesterol and triglycerides and increase in HDL level. However, the mechanism of these specific properties is not fully understood. In the small intestine, ATP-binding cassette transporters G5, G8 and A1 (ABCG5, ABCG8 and ABCA1), as well as Niemann-Pick C1 like 1 (NPC1L1) protein has important roles in cholesterol metabolism. In this study, we evaluated the beneficial effect of aqueous extract of garlic on lipid profile and also expression of npc1l1, abca1, abcg5 and abcg8 genes in the intestine of N-Mary mice fed a high cholesterol diet as a possible mechanism of garlic effect. Mice were randomly divided into three groups (n=8): Group 1: high cholesterol diet (HCD, or obese) (received chow + 2% cholesterol + 0.5% cholic acid); high cholic onreceiveinhow + 2% 4%4 (o)12 (w/w)0.50.0054 TD[*](c)69 (r)4 (lic)0. (lest + 2)6 (h)4 (o)7 (lic 5 (t)6 (er)13 (o)7 (l)0..5% c)6 (h)4 (o)7 (l