

刺五加香薷合剂对高脂血症患者血清脂质的影响

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内容提要 对服用 10 天刺五加香薷合剂的 31 例高脂血症患者进行服药前后血清脂质测定。结果表明服药后患者血清中 β -脂蛋白 (β -LP) 含量降低 32.6%。高密度脂蛋白-胆固醇 (HDL-C) 含量升高 16.3%。HDL-C/TC 比值和 HDL-C/LDL-C 比值明显升高, 动脉硬化指数 (AI) 明显降低。说明刺五加香薷合剂可调节高脂血症患者的血脂代谢, 对预防和改善动脉硬化具有良好作用。

关键词 刺五加 香薷 高脂血症

血清脂类物质含量与动脉粥样硬化密切相关, 近年来血清高密度脂蛋白含量与动脉粥样硬化的关系为较多学者所关注。大量实验资料表明血清 HDL-C 与冠心病发病率呈负相关关系, HDL 在动脉粥样硬化过程中起重要抑制作用^[1,2]。本研究在已观察到刺五加香薷合剂对老龄大鼠血脂代谢具有调节作用的基础上, 进一步观察合剂对高脂血症患者血清脂质, 特别是对脂蛋白含量的影响, 为治疗和预防动脉硬化提供科学依据, 现报道如下。

资料与方法

一、观察对象: 根据卫生部北京老年医学研究所李健斋的调查, 提出的标准总胆固醇 (TC) > 250mg/dl 为高胆固醇血症, 甘油三酯 (TG) > 200mg/dl 为高甘油三酯血症, β -LP > 650mg/dl 为高 β -脂蛋白血症。HDL-C < 35mg/dl 为明显偏低。根据此标准我们在本所工作人员和离退休干部中, 经体检挑选出高脂血症患者 31 例, 其中男性 20 例, 女性 11 例。每位被观察对象至少有一项指标高于上述标准, 或高密度脂蛋白胆固醇低于 35mg/dl。在本研究整个过程中, 被观察者没有节制饮食、无其它药物及非药物治疗。

二、服药剂量及方法: 每人每天服用刺五加 (*Acanthopanax Senticosus*) 香薷 (*Elsholtzia*

Splendens) 合剂 60ml, 每毫升合剂含生药量刺五加为 0.3g、香薷为 0.1g。合剂中含有适量甜味剂, 无其它药物成分。每人每天服刺五加为 18g, 香薷为 6g。早晚各服 1 次, 连服 10 天。

三、采血: 采集清晨空腹前臂静脉血, 分离血清, 储存于 -20℃ 冰箱待测, 服药前后进行自身比较。

四、血脂测定方法: TC、TG、HDL-C 应用 GEMSTAR 自动生化分析仪和北京化工厂生产的配套药盒。HDL-C 沉淀剂为磷钨酸-镁溶液。 β -LP 采用肝素-锰比浊法。低密度脂蛋白-胆固醇 (LDL-C) 按 Friedwald 公式计算而得^[3], $LDL-C = TC - (TG \times \frac{1}{5} + HDL-C)$; 动脉硬化指数也按公式计算而得。公式如下: $AI = \frac{TC - HDL-C}{HDL-C}$ 。

结 果

患者治疗前后血清脂质测定结果见附表。由表中数值可以看出患者在服用刺五加香薷合剂 10 天后, 血清 β -LP 浓度明显下降, 下降率为 32.6%, 而血清 HDL-C 浓度明显升高, 上升率为 16.3%。同时还观察到患者血清 HDL-C/TC 比值、HDL-C/LDL-C 比值明显提高, 动脉硬化指数 AI 明显降低, 下降率为 17.4%。患者血清 TG、LDL-C 虽有下降趋势但都未达

附表 刺五加香薷合剂对高脂血症患者血清脂质的影响 ($\bar{x} \pm S$)

观察指标	服 药 前	服 药 后	P 值
TC(mg/dl)	262±74	262±86	>0.05
TG(mg/dl)	193±192	165±111	>0.05
β -LP(mg/dl)	902±228	608±189	<0.001
HDL-C(mg/dl)	53±13	61±15	<0.001
LDL-C(mg/dl)	170±58	167±79	>0.05
HDL-C/TC	0.22±0.07	0.25±0.09	<0.001
HDL-C/LDL-C	0.35±0.18	0.45±0.27	<0.01
AI	4.1±2.1	3.4±1.5	<0.01

到显著程度, TC 浓度值基本没有变化。在整个观察期内患者均未出现任何不良反应。

讨 论

本研究对象年龄在 50~60 岁之间,其血清 TC 平均值高于 250mg/dl, TG 平均值接近 200mg/dl, β -LP 浓度超过 650mg/dl, 临床可诊断为高脂血症。关于 HDL-C 的正常范围目前还没有统一标准。据李健斋等在北京地区测定正常人资料报道, 50~60 岁之间男女被检验者血清 HDL-C 平均值在 53~62mg/dl 范围内⁽⁴⁾。另据报道冠状动脉硬化患者血清 TG、TC、 β -LP 浓度均明显升高, 而 HDL-C 含量明显降低, 11 例被诊断为冠状动脉硬化者血清 HDL-C 为 44.4±9.5mg/ml⁽⁵⁾, 60 例脑血栓患者 HDL-C 浓度为 44.6±10mg/dl⁽⁶⁾, 46 例脑梗塞患者血清 HDL-C 浓度是 41.7±4.3mg/dl⁽⁷⁾。以上这些资料说明, 脑血管疾病及冠心病患者血清 HDL-C 都明显低于同龄健康人水平。本研究所观察的 31 例患者血清 HDL-C 浓度为 52.6mg/dl 处于健康同龄人低限水平, 有潜在性动脉硬化的趋势。但经 10 天口服刺五加香薷合剂后, 有关生化指标明显好转, HDL-C 浓度明显上升, 恢复到正常水平。而 β -LP 明

显下降。

胆固醇在体内的代谢, 不仅依赖脂蛋白的运输, 而且受脂蛋白的调节。Miller 等认为 HDL 具有调节体内组织胆固醇库的作用, 它可将周围组织及动脉壁上的胆固醇吸收下来, 并把它运输到肝脏中分解, 从胆汁排出。因此 HDL 可防止脂质在动脉壁上的沉积, HDL 浓度的降低不利于动脉壁上脂质的正常清除, 有可能加速动脉粥样硬化的发展, HDL 具有抗动脉硬化作用⁽¹⁾。与之相反 LDL 可将胆固醇等脂质沉积在动脉壁上, 促进动脉硬化⁽²⁾。高脂血症患者服用 10 天刺五加香薷合剂即可明显降低低密度脂蛋白浓度、提高 HDL-C 浓度, 表明刺五加香薷合剂在调整脂代谢中的重要药理作用。

总之, 刺五加香薷合剂可明显降低高脂血症患者低密度脂蛋白浓度、提高 HDL-C 浓度, 降低动脉硬化指数, 在抗动脉硬化防止冠心病中具有良好作用。

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tract bleeding.

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Observation on Formation of Extrinsic Blood Thrombosis in 102 Cases of Thromboangiitis Obliterans

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The formation of extrinsic blood thrombosis in 102 cases of thromboangiitis obliterans and 54 healthy persons were observed with Chandler method and their clinical manifestations. All the 102 patients were male, of which 13 cases were in ischemic stage, 45 cases in dystrophic stage, and 44 cases in necrotic stage. According to the differentiation of TCM, 8 belong to Yin(阴)-cold type, 50 belong to downward flowing of damp-heat type, 42 belong to blood stasis type, and 2 others. Combining method of TCM-WM was adopted to give 45 cases systemic treatment, that is, taking the promotion of blood flow to remove its stasis as the dominant factor, accompanied by intravenous drip and operation. Results showed that the length, wet weight and dry weight of extrinsic blood thrombosis were higher apparently in the cases of thromboangiitis obliterans than those in healthy persons ($P < 0.001$), and there were significant differences between the values of extrinsic blood thrombosis in different stages and different degrees. After systemic treatment with TCM-WM, the values of extrinsic blood thrombosis decreased remarkably, and their symptoms and signs improved or disappeared. The clinical total effective rate was 88.89%, and the decreasing rate of the values of extrinsic blood thrombosis was 98.9%. This suggested that the high blood coagulation and extrinsic thrombosis should draw special attention and may act as an approach reflecting the severity of the disease and evaluating the effects of treatment.

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Effect of the Mixture of *Acanthopanax senticosus* and

Elsholtzia splendens on Serum-lipids in Hyperlipemia Patients

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The serum-lipids were determined in 31 hyperlipemia patients before and after treated with the mixture of *Acanthopanax senticosus* and *Elsholtzia splendens*. While the mean value of serum β -lipoprotein decreased from 902 ± 228 mg/dl to 608 ± 189 mg/dl ($P < 0.001$), the mean value of HDL-C increased from 52.6 ± 12.5 mg/dl to 61.2 ± 15.4 mg/dl ($P < 0.001$). Thus the ratios of HDL-C to total cholesterol (HDL-C/TC) and to LDL-C (HDL-C/LDL-C) increased significantly, the arteriosclerosis index (AI) decreased significantly. The results indicate that the mixture of *Acanthopanax senticosus* and *Elsholtzia splendens* could improve the lipid-metabolism in hyperlipemia patients so that it might play a good role in preventing or alleviating arteriosclerosis.

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Study on Treatment and Prevention of Asymmetrical Intrauterine Growth Retardation with Huoxue Huayu(活血化瘀) Prescription

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The purpose of this study was to observe the therapeutical and preventive effect of the compound prescriptions of Huoxue Huayu (promoting blood circulation to remove stasis, PBCRS) and Yiqi Huoxue (益气活血, replenishing Qi (气) to remove stasis, RQRS) on experimental intrauterine growth retardation (IUGR) caused by passive smoking during pregnancy in rats. The fetal average birth weight and the erythrocyte deformability were found to be significantly reduced in the smoke-exposed group compared with the control group. However, there was a significant increase of blood viscosity (at both shear rates), Hb, Ht, MCV, MCH levels and the erythrocyte fragility in the smoke-exposed group in comparison with the control group. After the mother-rats were given PBCRS and RQRS prescriptions during gestation, the fetal average birth weight and erythrocyte deformability were markedly increased. The blood viscosity, Hb, Ht, MCV, MCH levels and erythrocyte fragility of pregnant rats were decreased. No differences were found in the control group and the two treated groups. The electronic microscope observation of erythrocyte shape shows there were some protrusions on the surface of red cells in the smoke-exposed group. The protrusions were significantly reduced in the two treated groups, which was similar to the control group. The