

Clinical Observation on Combined Therapy of Atorvastatin Calcium and Xuezhikang on Lipid-lowering

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Abstract. With the improvement of economic living standards and changes in people's lifestyles and eating habits, in recent years to atherosclerosis-based ischemic cardiovascular disease (including coronary heart disease and ischemic stroke) significantly increased the incidence, Hyperlipidemia is one of the risk factors for arteriosclerosis, coronary heart disease trigger factor, lower blood lipids help reduce the incidence of cardiovascular and cerebrovascular events and mortality. At present, a variety of statins lipid-lowering drug prices are more expensive, many patients difficult to adhere to long-term use. This study investigated the effects of atorvastatin and Xuezhikang capsules on lipid lowering in elderly patients with hyperlipidemia.

Introduction

Hyperlipidemia is a common clinical disease, is leading to atherosclerosis and coronary heart disease (CHD) the main reason for the incidence. In China, mainly in the triglyceride (TG) and cholesterol (TC) increased mainly. Reduce TG, TC, help to prevent the occurrence and development of atherosclerosis, reduce the incidence of CHD and mortality. Xuezhikang is a high-tech biotechnology from the special red yeast extract refined from the lipid-regulating agent, the main component of hydroxymethyl glutaryl coenzyme A (HMG) CoA reductase inhibitors, and with a variety of essential Amino acids and unsaturated fatty acids. Atorvastatin is a new HMG) CoA reductase inhibitor that is bioactivated after oral absorption. Both have significant reduction in hyperlipidemia, and can inhibit the formation of aortic atherosclerotic plaque and reduce the role of fatty liver, and non-toxic reaction. This article will compare the lipid-lowering effect of Xuezhikang and atorvastatin.

The motherland medicine believes that hyperlipidemia is due to the patient's hot and humid, dietary section, stagnant spleen, causing the body's metabolism is not smooth, the body's phlegm, congestion in the body, the clinical mainly to heat phlegm Wet, spleen and phlegm dehumidification, liver and blood qi and blood stasis and phlegm as the basic principles of treatment, traditional Chinese medicine Jiangzhi Tongmai capsule mainly by turmeric, Alisma, Panax, Cassia and other drugs, turmeric extract Turmeric oil can significantly inhibit the oxidation of serum low density lipoprotein to reduce the formation of atherosclerosis, and another extract of curcumin can inhibit oxygen free radical damage to the cells to protect the liver cells, cassia seed in the relevant components Elevated high-density lipoprotein levels, lower total cholesterol, Alisma diarrhea with diuretic, heat and dampness effect, and Panax has the effect of promoting blood circulation Jiangzhi Tongmai capsule with lipid-lowering fluid, phlegm dampness, blood circulation, Tongmai Hupan role. Clinically used for phlegm and blood stasis caused by hyperlipidemia, especially with the combination of triacylglycerol increased mixed hyperlipidemia patients.

Materials and methods

85 cases of elderly patients with hyperlipidemia, are the author of the hospital in January 2010 to March inpatient outpatients. LDL-C > 4.34 mmol/L, TG > 1.7 mmol/L, HDL-C < 0.9 (P < 0.05), and the blood lipid level was 2 times, mmol/L. (2) nephrotic syndrome; (3) hypothyroidism; (4) acute and chronic (1) hyperlipidemia caused by drugs such as diuretics and certain contraceptives; (2) nephrotic syndrome; Liver and gallbladder disease.

85 patients with hyperlipidemia were randomly divided into two groups: 42 patients with Xuezhikang group, 21 males and 21 females, aged 60 to 83 years, mean (68.5 ± 4.2) years; atorvastatin group 43 patients, 25 males and 18 females, aged 62 to 81 years, mean (67.3 ± 5.1) years. There was no significant difference in gender, age and underlying disease between the two groups (P > 0.05).

Yukang group: to Xuezhikang capsule (Beijing North Technology Science and Technology Co., Ltd., Z10950029) 0.6 g, 2 times/d, treatment for 12 weeks. Atorvastatin group: 10 mg/d atorvastatin (Lipitor, Pfizer Pharmaceutical Co., Ltd., J20070060) was given daily for 1 week for 12 weeks. (2) blood routine, urine routine, liver function, blood nitrogen, creatinine; (3) lipid determination: before and after taking the drug to observe the blood lipids before and after the treatment of the following indicators: (1) record adverse drug reactions; Variety.

According to the Ministry of Health to develop the "new drug treatment of hyperlipidemia in the clinical study to understand the principle of" the efficacy of the standard for 12 weeks of treatment of two groups of patients to determine the efficacy of: TC decreased $\geq 20\%$ or TG $\geq 40\%$ or HDL LDL-C increased by 0.1% to 0.26 mmol/L or LDL-C decreased by 20% to 40% or 20% to 40% for TG or 0.1 to 0.26 mmol/L for LDL- C decreased by 10% to 19% were valid; did not meet the effective criteria were invalid; total effective = effective + effective.

Data Results Statistics

TC, TG, LDL-C decreased, while HDL-C increased. There was no significant difference in the total effective rate between the two groups after treatment (P > 0.05). Atorvastatin group 3 patients (6.9%) patients with bloating, constipation and loss of appetite and other adverse reactions, did not give special treatment, withdrawal symptoms disappeared. Xuezhikang group 2 cases (4.7%) patients with dizziness and constipation and other discomfort, no interruption of treatment, withdrawal symptoms disappeared. Two groups of patients before and after treatment were no liver function, renal function and blood abnormalities. The cost of drugs and the inspection costs, to March 2011 inspection and drug prices prevail, the two groups check the same price, are 200 yuan, but the blood lipid group drug price of about 435 yuan, significantly less than Atto Vastatin group of 720 yuan.

Xuezhikang is a self-developed lipid-lowering medicine, the main component of red yeast rice. Which contains a variety of natural compound statins, a number of large-scale clinical trials at home and abroad have confirmed that statins have a significant reduction in the incidence of coronary heart disease. Also contains unsaturated fatty acids, trace elements, zi Er, soy isoflavones and other natural ingredients. The study suggests that hematocrit can regulate the synthesis of triglycerides in the liver, thereby reducing the TC, TG, LDL- C, increased HDL-C; other drugs contained in the alkaloids and flavonoids and statins containing unsaturated fatty acids can inhibit triglyceride synthesis. China has been reported that blood lipids and statins have the same effect. The elderly have special pathophysiological characteristics, such as liver, kidney and other important organs of the reserve function is reduced, often combined with a variety of drugs, prone to drug interactions. For those who need long-term medication for elderly patients, the choice of efficient, low toxicity,

inexpensive lipid-lowering drugs is of great significance. The clinical observation shows that Xuezhikang and atorvastatin have a good lipid-regulating effect, and the two lipid-lowering effect is similar. Xuezhikang capsule long-term use no obvious side effects, with good safety, and low prices, long-term treatment is easy to be accepted by patients, worthy of clinical use.

Comparison of the Effects of Blood Lipids and Atorvastatin on Lipid-lowering

Lotus stearin, Beijing Huifei Pharmaceutical Co., Ltd., batch number 010516, 7 yuan/box, 10mgP tablets; cholesterol, Beijing Aobo Star Biotechnology Co., Ltd. production, analysis of pure, batch number 980924; triglycerides, total cholesterol and low density lipoprotein cholesterol kit: Beijing Zhongsheng biological engineering high-tech companies Production, batch number of 981201,981227,981209.80% of the basic feed (corn starch 9017%, 5% peanut oil, mixed inorganic salt 3%, mixed vitamins 1%, DL) methionine 013%) by adding 15% egg yolk powder, 015 % Cholesterol and 415% lard. Forty Wistar rats were selected, 160-180 g, male. The basal diet was fed in the laboratory for 5 days and then randomly divided into 4 groups: ¹ normal control group: 10 rats, fed basal diet, daily saline equal volume of normal saline. ^o model group: 10 rats, fed high fat diet, daily gavage of the same amount of saline. Xuezhikang group: 10 rats, fed high-fat diet, daily gavage of the same amount of saline, containing Xuezhikang 0148g. Atorvastatin group: 10 rats, fed high-fat diet, daily gavage of the same amount of saline, containing atorvastatin 20mg. The rats in each group were fed with 115ml and fed for 28 days. All rats were sacrificed and blood was collected. Centrifuge at 3000rPmin for 15min. Serum samples were taken from triglyceride, total cholesterol and low density fat (TG), total cholesterol (TC), and low density lipoprotein cholesterol (LDL) C were determined by protein cholesterol kit. The method of operation was carried out according to the kit instructions.

The difference between the two groups was significant, and the rats in the model group had all been hyperlipidemia rats. The values of total cholesterol (TC), triglyceride (TG) and low density lipoprotein cholesterol (LDL) C were decreased ($P < 0.05$). There was no significant difference in TC and LDL between the two groups ($P > 0.05$). The TG difference was significant ($P < 0.01$).

Pure Chinese medicine preparation of blood liposporan rich hydroxymethyl glutaryl coenzyme A reductase inhibitor, animal experiments have confirmed that it is good lipid-lowering effect, less adverse reactions, clinical application is more extensive. Atorvastatin is a new lipid-lowering drug, approved by the US FDA in 1996, in the international community after more than 100 clinical trials, confirmed its excellent efficacy and safety, is a very promising lipid-lowering drugs The The results showed that Xuezhikang and atorvastatin had a good lipid-lowering effect on hyperlipidemia rats, both of which reduced TC and LDL. The effect of C was basically the same, but no significant difference was found, but atorvastatin reduced TG The role was significantly better than Xuezhikang.

Xuezhikang is refined from pure natural red yeast extract, its main component is hydroxymethyl glutaryl coenzyme A (HMG-COA) reductase inhibitors and a variety of essential amino acids and unsaturated fatty acids. Animal experiments confirmed that it has a significant role in lipid regulation and inhibition of atherosclerotic plaque formation, protection of vascular endothelial cell function, inhibition of vascular smooth muscle cell proliferation and migration. Atorvastatin is a new type of statin lipid-lowering drugs, in addition to lipid-lowering effect, but also reduce cell adhesion molecules, improve endothelial function, reduce platelet aggregation, improve the coagulation mechanism, so that the risk of thrombosis decreased, Thereby reducing the incidence of cardiovascular and cerebrovascular events. The results of this study show that Xuezhikang and

atorvastatin have a good lipid-regulating effect. And both lipid-lowering effect is similar. Xuezhikang for China's own development of an effective lipid-lowering drugs, relative to the import of similar products, after all, is a more economical and safe lipid-lowering drugs.

Conclusion

In summary, atorvastatin and Xuezhikang treatment of dyslipidemia, with significant effect, the incidence of adverse reactions is low and mild, patient tolerance is good, the advantages of safety, coronary heart disease and secondary prevention and treatment Are playing an important role.

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