

of the traditional Chinese medicine Qingfeng rattan alkaloid extractive sinomenine in treatment of chronic nephritis

1. Inhibit the expression of ICAM-1

In the normal physiological state, intercellular adhesion molecule ICAM-1 is almost no expression, but when the renal inflammatory disease or a variety of immune reactions lead to the body produces various kinds of kidney disease, ICAM-1 expressed significantly in renal tubular epithelial cells, globular mesangial cells, renal tubular peripheral vascular endothelial cells.

2. Down-regulated TNF- α expression TNF- α is a small molecule protein mainly secreted by mononuclear - macrophages, the study found that excessive TNF- α expression, will stimulate mononuclear cells and T lymphocyte to secrete hormones, promote proliferation of glomerular mesangial cell, increase sclerosis of glomerular. TNF- α can also affect the function of glomerular mesangial cells, induced by the formation of a large number of platelet-activating factor (PAF), stimulate mesangial cell proliferation, division. The sinomenine can reduce the expression of TNF- α and TNF- α mRNA, improve the pathological changes of chronic nephritis, delay glomerular sclerosis.

3. Immunosuppressive effects Lymphocytes are an important component of the immune response of the body, in which the main constitute of lymphocytes T lymphocytes, can directly kill the target cells, auxiliary and inhibition of B cell antibodies and so on. The new member Th17 of T cell subgroup can promote the production of IL-17 factor, it can also stimulate the body to produce inflammatory response, leading to related autoimmune diseases. Studies have shown that, sinomenine novel derivatives 1032 can selectively inhibit the differentiation of Th17 cell, thereby reducing the inflammatory response of autoimmune encephalitis.

Conclusion In recent years, domestic and foreign scholars have shown that sinomenine has anti-inflammatory, immunosuppressive, anti-tumor and other biological activity through a large number of animal experiments and clinical observation studies, for the treatment of chronic nephritis provides a theoretical and practical basis. However, the current market common sinomenine formulations are more single. The scope of application is also concentrated in the rheumatoid joint disease, while the sinomenine itself has the easy decomposition, short biological half-life characteristics, resulting in the use of dose is too large, seriously affecting the convenience of clinical application of sinomenine. We hope that with the drug mechanism research of the sinomenine in-depth progress, the preparation process can be significantly improved, on the occasion the application of sinomenine-related agents in the treatment of chronic nephritis will have a broader prospect.

RESEARCH ON THE EFFECTIVE FRACTION OF SHAOFUZHUYU DECOCTION THROUGH HUMAN PRIMARY ENDOMETRIOSIS CELLS

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Abstract Endometrial primary cells as in vitro cells can better respond to endometrial physiological activity, the research of uterine-related diseases is of great significance. The endometrial cells were digested by enzymatic digestion, and the endometrial stromal cells and epithelial cells were separated by differential centrifugation and sieve method. Study on the active fraction activity of Shaofuzhuyu Decoction.

Key words: Shaofuzhuyu Decoction, Endometriosis, Primary cell culture.

Objective Cultured human primary endometrial cells were used to observe the efficacy of different administration fractions of Shaofuzhuyu Decoction.

Materials and methods No phenol red DMEM/F12 medium, Fetal bovine serum, Type IV collagenase, PBS, Penicillin-streptomycin solution, MTT, DMSO, the whole formula of Shaofuzhuyu Decoction, the alcohol sink fraction of shaofuzhuyu Decoction, Shaofuzhuyu Decoction 20% alcohol wash fraction, Shaofuzhuyu Decoction 40% alcohol wash fraction, Shaofuzhuyu Decoction 60% alcohol wash fraction.

Patients from the Second Affiliated Hospital of Heilongjiang University of Traditional Chinese Medicine were treated with strict sterile conditions for the removal of ectopic endometrial tissue. Tissue was immediately placed in 10 mL of 1% green-streptomycin-free phenol red DMEM/F12 medium and delivered to the laboratory within two hours. The tissue was retrieved with a Pasteur tube to wash the tissue twice and wash away the remaining blood clots. Cut the tissue into 1 mm³ pieces with ophthalmic tweezers and add 10 mL of type IV collagenase digestion solution to the carbon dioxide incubator for 1 hour and 20 minutes. The digested tissue was pipetted into a 15 mL centrifuge tube and centrifuged at 3 minutes (500 rpm). Supernatant mostly is endometrial stromal cells, precipitation mostly is endometrial epithelial cells. The upper fluid was aspirated into a 50 mL centrifuge tube by a 40 μ m cell sieve. The filtrate was endometrial stromal cells and the endometrial epithelium was on the filter. Spray 3 mL of culture solution with a pipette to rinse the epithelial cells on the filter to a new 50 mL centrifuge tube. The initial centrifugation was suspended in 2 mL of cell culture medium and the suspension was again filtered through a 40 μ m cell. Stromal cells and epithelial cells collected in a 50 mL centrifuge tube were transferred to a 15 mL centrifuge tube, respectively. Endometrial stromal cells were centrifuged at 5 min (1200 rpm) and endometrial epithelial cells were centrifuged at 5 min (1000 rpm). Take the original endometrial stromal cells and epithelial cells according to cell count, diluted to 10⁴-10⁵, mixed cells to 200 μ L per hole in 96-well plate. After 48 hours the replacement fluid removed the unattached tissue cells. 72 hours later, the five drugs

were 20µg/mL, 2µg/mL, 0.2µg/mL concentration of each drug three holes. After 24 hours of administration, MTT dye was added to each well and the carbon dioxide incubator was added for 4 hours. Discard the culture medium, plus 150µL of DMSO per well, the level of shock for 15 minutes, into the microplate reader at 492nm absorbance detection.

Results and discussion Shaofuzhuyu Decoction 40% alcohol wash fraction inhibit ectopic endometrial growth, and showed a gradient inhibition at the drug concentration. Most of the 60% alcohol wash fraction of Shaofuzhuyu Decoction inhibited cell growth, but no regularity was found at this concentration. It can be presumed that the main components of the 40% alcohol wash fraction and the 60% alcohol wash fraction of the Shaofuzhuyu Decoction are the effective combination of isorhamnetin-3-O-neopalopyranoside and typhaneoside in the treatment of endometriosis ingredients. Ferulic acid and paeoniflorin in the 60% alcohol wash fraction may also be an active ingredient in the treatment of endometriosis.

Shaofuzhuyu decoction of complex ingredients, simple animal pharmacological experiments can't be a comprehensive response to the basis of drug substance. Through in vitro culture of human primary endometriosis cells, Shaofuzhuyu Decoction effective ingredients can be more accurate understanding. The lack of experimentation is that there is no validation of the interaction between the monomer or monomer components in the different extraction fractions, which is what we will do in the next part of the experiment.

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THE DEVELOPING OF THE PHARMACOLOGICAL ACTION OF HYDROXYTYROSOL

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Abstract: Hydroxytyrosol is a kind of polyphenol compounds exists in the olive, has good biological effects. This paper reviews the action of hydroxy tyrosol in anti-cancer, resistant microorganisms, antithrombotic, regulation of blood lipids and resist arteriosclerosis, prevention and control of hepatitis b resistance, macular degeneration, protect cartilage and anti osteoporosis and health care function and other aspects of pharmacological effects and mechanism.

Keywords: Hydroxytyrosol, Anticancer, antimicroorganism, antithrombus, Regulating, blood lipids and antiatherosclerosis

Lilac leaves are dried leaves of lilacs. The study of lilacs in modern times has been more extensive, and its active substances include Hydroxy butyl alcohol. Hydroxytyrosol has a strong antioxidant activity, is also an important chemical composition of lilac leaves. In recent years, the study found that the hydroxyl tyrosol has the pharmacological effects on anti-cancer, resistant microorganism, antithrombotic, regulation of blood lipids and resist arteriosclerosis, prevention and control of hepatitis b resistance, macular degeneration, protect cartilage and anti osteoporosis and health care function at home and abroad, so the development of drugs for treating diseases will have certain significance.

1 Anticancer Cancer is one of the major public health problems recognized in many countries. In the United States, tumors are the only cause of death after cardiovascular disease. In China, the death rate of cancer is increasing year by year. The excess of free radicals and reactive oxygen in the body destroys DNA and causes the gene to express an abnormal expression of the tumor. Hydroxy butyl alcohol with pyrocatechol structure, is a typical oxidation stress material and free radical scavenger, which provided a certain basis for the pharmacological effects of anti-tumor [1]. Studies have shown that hydroxytyrosol has an inhibiting effect on multiple stages of tumor development.

2 Anti-pathogeny microorganism The anti-pathogeny microorganism of hydroxytyrosol is characterized by wide spectrum and high efficiency. It is used as a food additive based on its antimicrobial advantage. HT not only has antimicrobial activity for harmful bacteria in the intestinal tract, but also has inhibitory effect on bacillus. Hydroxy butyl alcohol not only can be used as antibacterial, antiviral drugs, can also be used to strengthen the function of the body's defense, all reflect the HT development potential for disease resistance of original microbial drugs.

3 Antithrombus; Regulating blood lipids and antiatherosclerosis HT inhibits the adhesion and activity of platelets to prevent the formation of clots. The resistance of cardiovascular disease may be related to lower blood sugar and lipid oxide concentration, the data show that the hydroxyl butyl alcohol can also be used for diabetes, high blood sugar and oxidative stress symptoms [2]. The hydroxytyrosol protects the cells of the body from oxidation and prevents hardening of the arteries by inducing the expression of the activation of adenosine activation protein kinase and activating the active FOXO3a enzyme.

4 Other pharmacological effect In addition to the above pharmacological effects, hydroxytyrosol also has the role of preventing macular degeneration, protecting cartilage and preventing osteoporosis and health care. And environmental toxicity and oxidation of fat granule and age factors such as prevention effects of the oxidative damage epithelial cells of the retina, especially suitable for the elderly to maintain eye health and high resolution, so as to improve the effect of vision. The cartilage is a dense connective tissue, such as osteoblasts or chondrocytes, which are buried in the extracellular matrix. It is an important part of the skeleton. Hydroxy tyrosol played an important role