

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

in bone formation of bone health, can be used as drug for the treatment of osteoporosis, to induce or enhance cartilage repair or regenerate, so the hydroxyl tyrosol will fully used in athletes with greater amount of exercise [3].

**5 Summary and outlook** Hydroxytyrosol has the pharmacological effects and health care effect on anti-cancer, resistant microorganisms, antithrombotic, regulation of blood lipids and resist arteriosclerosis, prevention and control of hepatitis b resistance, protect cartilage and anti osteoporosis, etc. With the deep research of Hydroxytyrosol, it will be meaningful to study and clinical research.

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### RESEARCH PROGRESS OF RENAL OSTEOPATHY

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**Abstract:** In recent years, with the progress of diagnosis and treatment of chronic kidney disease, the survival of patients was significantly longer, but with the disease progress, a series of complications was generated. Renal osteopathy is one of the common complications. Regardless pathogenesis, or diagnosis and treatment measures of Renal osteopathy are very complex. This article will review renal osteopathy research from the pathogenesis, clinical diagnosis and treatment.

**Key words:** renal osteopathy; pathogenesis; diagnosis; clinical treatment

Kidney is one of the important organs involved in bone metabolism. Renal osteopathy was bone metabolic diseases caused by the occurrence of chronic renal failure, including osteoporosis, osteomalacia, fibrous osteitis, bone sclerosis, soft tissue calcification, bone spondylolisthesis, bone deformity, bone regeneration disorder and pathological fractures.

**1 Pathogenesis of Renal Osteopathy** The pathogenesis of renal osteopathy is extremely complex and can be triggered by a number of factors that intervene and interfere with each other. Chinese medicine generally believe that renal osteopathy is evolved from the "guange", belonging to the traditional Chinese medicine "bone atrophy", "bone paralysis", "virtual" category, the basic theory of traditional Chinese medicine "kidney dominate bone" shown that the role of kidney for bone [1]. In modern medical research, glomerulonephritis, diabetic nephropathy, hypertension is the three major incentives [2], the others hyperphosphatemia, hypocalcemia, calcitriol levels decreased, parathyroid hormone (PTH) increased, aluminum poisoning, chronic metabolic acidosis can also induce the incidence of osteopathy [3].

**2 Diagnosis of Renal Osteopathy** Timely diagnosis and active prevention and treatment of Renal Osteopathy to improve the survival of patients and quality of life is of great significance. Renal Osteopathy according to its different pathogenesis, treatment is also different, so accurate diagnosis has become the key to renal osteopathy prevention and treatment. At present, mainly through bone biopsy, bone mineral density measurement and bone transport indicators diagnosis to diagnose in the clinical [4].

**3 clinical treatment of Renal Osteopathy** Clinical treatment of renal osteopathy is varied. In traditional Chinese medicine, mainly based on the "kidney dominate bone" of the basic theory, many kidney reinforcing methods are used, such as: tonifying kidney and strengthening bone method [5], tonifying kidney and spleen method [6], replenishing kidney and activating blood method [7] and so on. While Western medicine mainly from the etiology, by adding vitamin D or its analogues [8], phosphorus binders, non-phosphorus binders and other calcium sensitive agents and other drugs, or surgical treatment [9].

**4 Summary** The pathogenesis of renal osteopathy is complex and there are many incentives. Although the basic and clinical research has been widely research, but there is no effective treatment. Chinese medicine starting from the incentive, using of reinforcing kidney therapy, but the slow onset of Chinese medicine, treatment time is too long. In western medicine, from a variety of induced diseases, according to the symptoms caused by the disease to treatment, although the effect obviously, also lead to a variety of side effects. This article reviews the etiology and clinical diagnosis and treatment of renal osteopathy in order to facilitate the further study of renal osteopathy.

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