RESEARCH PROGRESS ON PHARMACOLOGICAL EFFECTS AND CLINICAL APPLICATIONS OF PERSIMMON LEAF FLAVONIODS

QU Huai-dong， YAN Xue-ying1*

1.College of Pharmacy， Heilongjiang University of Chinese Medicine， Harbin 150040， China

Abstract Persimmon Leaf Flavoniods（PLF）is the main active components of the fresh or dried Diospyros kaki Thunb.(Ebenaceae , Diospyros L.)leaves , which have several pharmacological effects such as the roles on cardiovascular system , antioxidant , hypolipidemic effect , hypoglycemic effect , hemostasis , antibacterial , antitumor , tyrosinase inhibition , and so on . At present , it is mainly used in the treatment of cardiovascular disease and hemorrhagic diseases . In this paper , the pharmacological effects and clinical applications are reviewd , which can provide theoretical bases for the further development and utilization of the plant .

Keywords: persimmon leaves; persimmon leaf flavonoids; pharmacological effects; clinical applications; cardiovascular system

Persimmon leaves are the fresh or dried leaves of Ebenaceae,Diospyros L.,Diospyros kaki Thunb.,which are bitter,cold and have the effect of reducing the gas,thirst,sheng jin,heat-clearing,detoxifying,antitussive hemostasis.The medicine has been recorded in the “Yunnan Materia Medica”since Ming Dynasty--”The leaves deposited carbuncle”[1]. The study of Ryu Ri [2]confirmed that PLF is the main active ingredient in persimmon leaves.Modern pharmacological studies have shown that PLF can protect the cardiovascular system, blood lipid, antioxidant, hypoglycemic, hemostatic, antibacterial, antitumor, pharmacological inhibition of tyrosinase activity, and low toxicity, less adverse reactions[3], which is rich in resources and easy industrialized production. In recent years, more and more attention has been paid to the medical profession. This “persimmon” persimmon flavone “persimmon leaf flavonoids” “pharmacological effects” and “Persimmon leaf flavoniods” Persimmon “leaf total flavoniods” and “Pharmacological effects” as key words, a combination of literature retrieval in PubMed, Elsevier, Springer, RSC, OSA, ACS, CNKI, VIP, Wan Fang, China superstar, Duxiu as in the database. Results a total of more than 40 English articles and more than 100 Chinese literatures were retrieved, of which there were more than 30 effective literatures. The pharmacological action and clinical application of PLF are reviewed in order to provide theoretical support for further development and utilization of PLF.

PLF is the main active ingredient in persimmon leaves[4]. Since the study found that PLF Huang Qigan, quercetin and kaempferol 3-O-beta-D-glucoside[5], kaempferol, quercetin, rutin, Hyperoside and[6]. Modern pharmacological studies have shown that it has a wide range of pharmacological effects[7].

Through the above studies, it can be fully demonstrated that PLF has a wide range of pharmacological effects, such as improving cardiovascular and cerebrovascular system, anti-oxidation, lowering blood fat, lowering blood sugar, hemostasis, antibacterial and antiviral, anticancer inhibition of tyrosinase and so on. But the study also found that although the pharmacological effects of PLF, low cost and low toxicity, but it is because of the PLF complex components, the mechanism is not clear and other reasons restrict its development and utilization in clinical. In view of the above problems, it is suggested that the following research should focus on the study of the action mechanism of the active ingredient and the development of PLF, in order to provide more reliable theoretical basis for the scientific and rational development and utilization of PLF

References:

[1] Ri R， Hye-Jin K， Byeongseok M， et al. Ethanol extract of persimmon tree leaves improves blood circulation and lipid metabolism in rats fed a high-fat diet [J]. Journalof Medicinal Food， 2015， 18（7）：715.

[2] Jung-Keun C， In-Hwa J， Ji-Min P， et al. Inhibitory effect of persimmon leaf extract on development of atopic dermatitis-like skin lesions [J]. Journal of the Korean Society for Applied Biological Chemistry， 2011， 54（4）：653.

[3] LiuL， LiuR， ZhangJ， et al. Study on the PEG-based microwave-assistedextraction of flavonoid compounds from persimmon leaves [J]. Journal of Separation Science， 2012， 35（23）：3412.

[4] Duan JY， Chen VL， Dong Q， et al. Chemical structure and immunoinhibitory activity of a pectic polysaccharidecontaining glucuronic acid from the leaves of diospyros kaki [J]. International Journal of Biological Macromolecules， 2010， 46（5）：465.

[5] XueYL， MiyakawaT， HayashiY， et al. Isolation and tyrosinase inhibitory effects ofpolyphenols from the leaves of persimmon diospyros kaki [J]. Journal of Agricultural and Food Chemistry， 2011， 59（11）：6011.

[6] Xie CY， Xie ZS， Xu XJ， et al. Persimmon(diospyros kaki L.) leaves:A review on traditional uses,phytochemistry and pharmacological properties [J]. Journal of Ethnopharmacology， 2015， 163（7）：229.

[7] Chen G， Lu HW， Wang CL， et al. Effect of five flavonoid compounds isolated from leaves of diospyros kaki on stimulus-induced superoxide generation andtyrosyl phosphorylation of proteins in human neutrophils [J]. Clinica Chimica Acta， 2002， 326（25）：169.

PHARMACOLOGICAL EFFECTS STUDY ON FERMENTED CORDYCEPS SINENSIS AND ITS CLINICAL OBSERVATION

Sheng Ziyang1 , Zhang Huijie2 Song Liqun2,

(1.Heilongjiang University of Chinese Medicine, Harbin, Heilongjiang, 150040, China, E-mail:407801324@qq.com; 2.Department of Nephrology, First Affiliated Hospital of Heilongjiang University of Chinese Medicine, Harbin, Heilongjiang, 150040, China)

Abstract: This paper summarizes the pharmacological studies and clinical application of fermented Cordyceps militaris in clinical practice, and provides literature support for the rational application of fermentation Cordyceps preparation. Artificial culture of fermented Cordyceps preparations in the pharmacological and efficacy of Cordyceps sinensis

similar to the low price, in recent years increasingly by the Chinese Medicine community attention.

Key words: Fermented Cordyceps; Clinical application; Summary of research

Cordyceps preparations mainly contain Cordyceps polysaccharide, a variety of amino acids, cordyceps, ergosterol and other chemical composition. The clinical application of fermented Cordyceps preparations can be used in the treatment of cardiovascular, liver, kidney and other diseases and adjuvant therapy, has a high application prospects, the recent fermentation Cordyceps mycelium pharmacological effects and clinical efficacy of induction and summary.

1.The study of immune function Tao Genjin[1] research shows that: Fermentation Cordyceps polysaccharide extract grass within a certain range (40-160 mu g/mL) can significantly improve the immunosuppressive mice ratio of CD4 + / CD8 + T lymphocytes ($P < 0.01$), increased spleen lymphocytes in the supernatant IL - 4, TNF alpha and beta IL - 1 content, by regulating spleen lymphocyte differentiation may be one of the ways to give play to the role of immune regulation.

2.The study of arrhythmia Zhong Weizhi[2] in 112 cases of patients with chronic arrhythmia diagnosis, were randomly divided into research group (56 cases) and control group (56 cases), the team to give fermented Cordyceps and trimetazidine treatment, the control group only give trimetazidine treatment, clinical observation for 30 days, to chronic arrhythmia statistical research of TCM syndrome integral, according to the results of treatment group total effectiveness 96.43%, control group total effective rate 80.35%, the difference was statistically significant ($P < 0.05$).

3. The study of liver disease Wang Xianbo[3] et al were randomly divided into observation group (40 cases) and control group (20 cases) in 60 patients with chronic hepatitis B diagnostic criteria, the observation group taken fermented Cordyceps preparations, Control group taken Heshuluogan tablets, observed treatment for 6 months. Detection of liver function, HBV-DNA load, serum fibrosis and other items. The results showed that after treatment, the observation group was better than the control group.The results show that fermented Cordyceps preparations can improve liver function, with antiviral effect, liver fibrosis also has a good antagonistic effect.

4.The study of kidney disease Gu Liubao[4] in research such as Chinese caterpillar fungus fermentation extract cordycepin effect on the left side of the ureteral ligation of renal fibrosis in mice showed that compared with the control group mice Masson staining renal tissue fibrosis, taking small tube cavity of mice cordycepin although kidney also has expanded, but it is much better than the control group, renal interstitial collagen deposition that extracts from cordyceps cordycepin can alleviate the renal interstitial fibrosis.

5. Summary and Prospect In summary, the artificial cultivation of fermented Cordyceps and its chemical monomer composition has a significant effect on mediating immune function, anti-fibrosis, mediating blood glucose, etc. in the treatment of immune diseases, liver diseases, kidney diseases and other diseases of the advantages, and in the course of the use of no significant side effects, the use of relatively safe, the effect is relatively stable. For the further development of the cultivation and utilization of Cordyceps species, different strains of the treatment of diseases have different effects, especially in the immune system, liver, kidney disease research should be more in-depth study, for the compound medicine, new drug research and development with far - reaching significance, artificial cultivation of fermented Cordyceps development and utilization has a good prospect.

References

[1] Tao Genjin. Study on immunoregulation of fermenting cordyceps and polysaccharides [D]. Nanchang: nanchang university, 2016:25.

[2] Zhong Weizhi. The clinical effect analysis of combined trimetazidine in the treatment of slow arrhythmias in elderly patients [J]. Chinese medicine guide, 2014, 14 (4) : 182.

[3] Wang Xianbo, Jiang Yuyong, Zhao Caiyan, Wang Xiaojing, Liu Fang, Wang Yadong, Cheng Jun. Clinical Study on Treatment of Hepatic Fibrosis of Chronic Hepatitis B with Xinganbao Capsule [J]. Chinese Journal of Integrated Traditional and Western Medicine, 2012,32 (3): 325-328.

[4] Gu Liubao. Bian Rongwen, Tu Ming, Hu Hao, Wan Yigang, Sun Weigang. The mechanism of regulating eIF2 alpha/TGF - beta/Smad signaling pathway to improve renal interstitial fibrosis [J]. Chinese traditional Chinese medicine journal, 2014, 39 (21) : 4096-4101.

RESEARCH PROGRESS OF TREATMENT OF ALZHEIMER 'S DISEASE WITH DIHUANGYINZI

Shuai Shao, Bo Zhang, Wei Li, Yang Xu, Shuming Huang*

(Heilongjiang University of Chinese medicine, China, Harbin 150040)

Abstract: Dihuangyinzi is a classical prescription. In recent years, clinical and experimental studies have shown that Dihuangyinzi has a certain effect in the prevention and treatment of Alzheimer's disease, vascular dementia and stroke, and it has a good protective effect on the nervous system This artiche discusses the experimental research in recent years.

Key words:Dihuang yinzi ; senile disease ; experiment study ; summary

1 The effect of the cholinergic system

The activity of the cholinergic system is closely related to human learning and memory and cognitive function. In the event of Alzheimer's disease (AD), Ach synthesis and release are reduced, which can lead to