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THE CHEMICAL COMPOSITION OF LICORICE AND ACTIVITY RESEARCH

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Abstract： Licorice is a kind of traditional Chinese medicine among the common medicinal plants.The air sweet flat,with Qingrejiedu,Buzhongyiqi,relieving pain,arresting cough, harmonize the drug effect. In recent years,with the popularization and application of traditional Chinese medicine, Many in-depth studies were conducted on chemical composition and pharmacological effects of licorice.This paper summarizes the chemical constituents and pharmacological effects of licorice,to promote the medicinal value of licorice in traditional Chinese medicine clinical application further more.

Keywords: licorice chemical composition activity research

Licorice, licorice, is leguminous plants ,swelling fruit licorice and light fruit licorice root (roots) after dry collectively, more growth in the loess hills, arid and semiarid desert grassland and the edge of the desert.Licorice main efficacy: Buzhongyiqi,Qingrejiedu, expectorant, cough, pain and break medicinal,its medicinal composition mainly includes: licorice flavonoids, glycyrrhizic acid, licorice polysaccharide, glycyrrhetinic acid and so on. In this paper, the pharmacological action of the main medicinal ingredients of liquorice is summarized.

1 Chemical Composition

1.1 Part of flavonoids ingredients have C6 C3 - C6 basic mother nucleus of natural products,widely exist in natureis a kind of important natural organic compounds.Licorice flavonoids from licorice extract in a kind of biological active ingredients.Many scholars on the chemical composition of a lot of research work.According to the existing data: at home and abroad has identified more than 300 was isolated from licorice flavonoids.

1.2 The terpene compound liquorice This kind of compounds in the main is a sweet saponin glycyrrhizin.Glycyrrhizin,also known as glycyrrhizic acid,is the main component of licorice by glycyrrhetinic acid and two molecules of glucuronic acid.Glycyrrhizin could be in the form of potassium or calcium salt exists in licorice.

1.3 Other compounds of licorice Toshio Japan 1989 was isolated from the aerial parts of heilongjiang of glycyrrhiza uralensis coumarin of 1,then separated into five other phenolic derivatives.Someone from licorice bur also receive a beta sitosterol,a compound of glutamic acid ethyl phthalein and palm acid.

2 Effect Research

2.1 The antiviral effect: HIV: Japanese scholars from licorice tannins in the active ingredient research activity Points (including flavonoids ingredients) to strengthen the human immunodeficiency virus (HIV) for ATL - IK (The source of adult T cell leukemia cell line) in patients with antagonism effect,two new licoriceEr ketone when low concentration showed proliferation inhibition of HIV.

2.2 Anti-inflammatory and immune function Glycyrrhetinic acid edema of rat granuloma induced by cotton ball,-formaldehyde,tuberculin reaction,subcutaneous granulomatous inflammation have certain inhibition.Japanese scholar small jian hour and isolated from licorice to have anti-inflammatory activity of flavonoids ingredients licorice glycosides.

2.3 Cough and asthma Licorice flavonoids,glycyrrhetinic acid and its derivatives have antitussive effect,the antitussive effect was produced by the central,glycyrrhetinic acid choline antitussive effect is the strongest.The choline salt subcutaneously or hydrogen choline succinic acid double salt oral,cough effect similar to codeine.

3 Summary To sum up, licorice is an important traditional Chinese medicine resource in our country,which occupies an important position in traditional Chinese medicine with its diverse ingredients and wide clinical application space. With its depth studies in chemical composition, more and more discovery of bioactive compounds of medicinal value and biological properties and pharmacological effects are also increasingly apparent, application value of licorice will have a broader space.

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RESEARCH PROGRESS ON NEW FUNCTION OF BAIHU DECOCTION

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Abstract: The Baihu Decoction was contained in Shen Nong's herbal classic, which is now widely used in clinic. In recent years, more and more attention has been paid to the study of the therapeutic effect and mechanism, In this paper, the experimental research on the new pharmacological action of the White Tiger Decoction, such as anti-inflammatory, hypoglycemic, immune regulation, and so on, was carried out. It is of great significance to further study the mechanism of action and develop new clinical application.

Key words: Baihu Decoction; The experimental progress; The research progress; New pharmacological action

1 Research Progress on anti inflammatory effect of Baihu Decoction

HaiX Z[1]studied on baihutang to pneumococcal pneumonia rats efficacy and mechanism of pneumonia rat model was made with tracheal intubation, to observe the activity of SOD, MDA, lung tissue pathological changes and serum and intestinal tissue in NO, TXB, C, change of C-reactive protein and serum 6-Kete-PGFIa. The lung tissue in pneumonia rats injury obviously, NO in serum of rats after modeling MDA, TXB increased, SOD activity, decreased 6-Kete-PGFIa, CPR and CP increased, given the low dose and high dose of Baihu Decoction after treatment, serum and intestinal tissue SOD activity, increasing the content of 6-Kete-PGFIa, MDA, NO, TXB. The content of CPR decreased, and CP decreased, Baihu Decoction low dose group for SOD activity in small intestine is not obvious, but significant differences in Baihu Decoction high dose group and cephalexin group ($P<0.05$), but in improving the activity of SOD, MDA, NO, TXB, 6-Kete-PGFIa and CPR and CP, Baihu Decoction high dose group and cephalexin group had no significant difference ($P>0.05$). It is concluded that the Baihu Decoctionion has a good anti-inflammatory effect, can inhibit free radical damage and regulate prostaglandin metabolism, reduce CPR and CP, protect lung tissue from injury.

2 Hypoglycemic effect YanR W[2] analysis of Baihu Decoctionion Combined with insulin in the treatment of type 2 diabetic patients with acute hyperglycemia. In the hospital were 120 cases of type 2 diabetes acute hyperglycemia patients according to different treatment, divided into study group and control group, the control group took insulin treatment, study group treated baihutang, after the end of treatment, compared the clinical effect of the two groups. The results showed that the clinical effect of the study group was significantly better than that of the control group ($P<0.05$). And Baihu Decoctionion Combined with insulin in the treatment of type 2 diabetic patients with acute hyperglycemia clinical efficacy, can reduce blood sugar, improve the quality of life.

TieY X[3]researched of Baihu Rensheng Decoction on type 2 diabetic rat model of oxidative stress pathway of superoxide dismutase (SOD) and glutathione (GSH) effect, and explore mechanisms of Baihu Rensheng decoction method of oxidative stress, injection of streptozotocin, the content and activity of serum SOD and GSH index. The results showed that Baihu Rensheng decoction has reduced blood glucose in the diabetic rats and improve the content and activity of diabetic rats serum SOD, GSH, alleviate the oxidative stress in diabetic rats, it has a good antioxidant capacity.

3 Immune regulation HongX L[4]studied of Baihu Decoctionion on the influence of MMP-1, MMP-3 and MMP-9 protein in patients with primary liver cancer after TACE operation, 120 cases were diagnosed as primary liver cancer complicated with postoperative concurrent TACE fever patients as the research object, divided into observation group and control group. The results showed that the effective rate of observation group was significantly higher than the control group. But after treatment in observation group, MMP-1, MMP-3, MMP-9 were significantly decreased ($P<0.01$), better than the control group. After treatment, the observation group MMP-1, MMP-3, MMP-9 expression level is lower than the control group ($P<0.05$); in addition, the observation group in 0.5 years, 1 years, 2 years, the tumor recurrence rate was lower than the control group ($P<0.05$), and the survival rate was higher than the control group ($P<0.05$). The results showed that the treatment effect of Baihu Decoctionion on the fever after primary TACE was better than that of Western medicine, the cure time was fast, the recurrence rate was low, and the safety was high, and it had the effect of preventing recurrence after TACE. JiangY L [5] observation of the effect of Baihu Decoctionion on the treatment of patients with acute cerebral infarction and its effect on the inflammatory factors. Methods 60 patients with acute