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

cerebral infarction were randomly divided into treatment group and control group. The changes of serum hs-CRP and IL-6 were measured. Results before and after treatment, the neurological deficit score of the treatment group was improved, and the score was significantly improved compared with the control group (P<0.05). There was no significant difference between the two groups of patients with serum high sensitivity C reactive protein (hs-CRP) and interleukin -6 (P>0.05), hs-CRP and IL-6 in treatment group were lower than those in control group (P<0.05) at day 3 and day 7 after treatment. There was no significant difference between the two groups of hs-CRP and IL-6 at the end of fourteenth. The results indicated that Baihu Decoctionion could obviously improve the treatment of acute cerebral infarction.

4 Conclusion Study on the hypoglycemic effect of the White Tiger Decoction, mainly focus on the research of ginseng white tiger decoction. Most of the experiments were carried out to study the effects of White Tiger Decoction on Antipyretic, anti-inflammatory, hypoglycemic and immune regulation. The aim of this study was to provide the basis and reference for exploring the mechanism and clinical application of the new drug.

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SYNERGISTIC ANTIHYPERTENSIVE EFFECT OF NIFEDIPINE AND CAPTOPRIL IN L-NAME-INDUCED HYPERTENSIVE RATS

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Abstract This study examined the effect of nifedipine plus captopril treatment on blood pressure in Nω-Nitro-L-arginine methylester(L-NAME)an inhibitor of endothelial nitric oxide synthase(eNOS),L-NAME-induced high systolic blood pressure (SBP) and increased heart rate (HR). Male Sprague-Dawley rats were treated with L-NAME (40 mg/kg/day) for three weeks and given nifedipine (2.7 mg/kg/day): captopril (1.125 mg/kg/day) or nifedipine (2.7 mg/kg/day) plus captopril (1.125 mg/kg/day) for two consecutive weeks. Combination treatment of nifedipine and captopril normalized all the abnormalities found in hypertensive rats. These data indicate that there are synergistic antihypertensive effects of nifedipine and captopril.

Key words: L-NAME-induced hypertension; Nifedipine; Captopril.

1. Introduction Hypertension remains one of the leading causes of morbidity and mortality in most of the developed countries [1]. Recently combinations of drugs with complementary or synergistic effects have shown favorable effects on the hypertension, these combinations may contribute to risk reduction and improve outcomes in the future.

In the vasculature, NO is synthesized from the amino acid L-arginine using an endothelial nitric oxide synthase（eNOS）. Chronic inhibition of continuous NO release by L-NAME, produces systemic vasoconstriction and high blood pressure[2].

Captopril, an angiotensin converting enzyme (ACE) inhibitor[3]. Nifedipine is a potent, representative Calcium-channel blocker (CCB) [4].

Objective To explore synergistic effect between CCBs and ACE inhibitors on L-NAME-induced hypertensive rats.

2. Materials and methods Nifedipine and captopril were purchased from DASF Chemical Industries, Ltd. (Nanjing, China), L-NAME was obtained from Sigma-Aldrich Corp. (St. Louis, MO, USA). All chemicals used in this study were obtained from standard companies and were of analytical grade quality.

The experimental groups were designed as five groups comprised of seven rats each: (Group1) sham-oparated (control), (Group2) L-NAME group, (Group 3) L-NAME + nifedipine group, (Group 4) L-NAME + captopril group, (Group 5) L-NAME + nifedipine + captopril group. The control group received normal saline gavage for 21 days. The L-NAME group received L-NAME (40 mg/kg, gavage) for 21 day. The L-NAME + nifedipine group received both L-NAME (40 mg/kg, gavage) for 21 days and nifedipine (2.7 mg/kg, gavage) for the last 14 days. The L-NAME + captopril group received both L-NAME (40 mg/kg, gavage) for 21 days and captopril (1.125 mg/kg, gavage) for the last 14 days. The L-NAME + captopril+ nifedipine group received both L-NAME (40 mg/kg, gavage) for 21 days and captopril (1.125 mg/kg, gavage) + nifedipine(2.7 mg/kg, gavage) for the last 14 days. The L-NAME was dissolved in normal saline (0.09% NaCl w/v). Tablets were crushed then dissolved in distilled water.