significantly reduced the content of plasma B_2 (TXB_2) in the animal model, significantly increased the content of 6-keto-$PGF_{1\alpha}$ in plasma and reduced the ratio of TXB_2 to 6-keto-$PGF1_{\alpha}$, which suggested that platelet function was improved. They decreased the expression of c-fos and COX-2 in brain tissue and significantly reduced the degree of pathological damage of brain tissue. This indicates that they had an anti-cerebral ischaemic effect.

Conclusion Ischaemic preconditioning can induce cerebral ischaemic tolerance. The total flavonoids of Mao Dongqing and ischaemic preconditioning have a synergistic effect by inhibition of the overexpression of immediate early gene c-fos, COX-2 and improved platelet function. It can reduce brain injury and promote the formation of cerebral ischaemic tolerance.

17 EFFECT OF SALVIA MILTIORRHIZA ON TMmRNA EXPRESSION IN CORONARY ARTERY TISSUE OF RATS WITH HIGH SALT INDUCED BLOOD STASIS

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Objective To understand the effect of *Salvia miltiorrhiza* on the cardiovascular system by the expression of tissue TMmRNA, and to provide the scientific basis for the use of *Salvia miltiorrhiza* and a low salt diet for the prevention and treatment of cardiovascular and cerebrovascular diseases caused by high salt intake.

Methods Thirty SD rats were randomly divided into a blank group, high salt group and *Salvia miltiorrhiza* group. The blank group was given intragastric distilled water and the high salt and the *Salvia miltiorrhiza* groups were treated with intragastric administration of 12% NaCl, for 30 consecutive days. Seven days before finishing this model, sterile water was injected intraperitoneally every afternoon in the blank group and the high salt group while, in the *Salvia miltiorrhiza* group, an injection of *Salvia miltiorrhiza* was given every afternoon. Then the animals were killed and the coronary arteries were removed. The expression of thrombomodulin mRNA (TMmRNA) in the coronary arteries of the rats in each experimental group was detected by the RT-PCR technique.

Result Compared with the blank group, the expression of TMmRNA in the coronary tissue of the high salt group was obvious ($p<0.01$). There was no significant difference between the *Salvia miltiorrhiza* group and the blank group ($p>0.05$). Compared with the high salt group, the expression of TMmRNA in the coronary tissue of the *Salvia miltiorrhiza* was significantly different ($p<0.01$). It was suggested that the expression of TMmRNA in coronary artery tissue was related to the high salt diet. The expression of TMmRNA in coronary artery tissue was down-regulated by *Salvia miltiorrhiza*.

Conclusion *Salvia miltiorrhiza* can reduce the expression of TMmRNA in the tissue of blood stasis caused by high salt, promote the repair of blood vessel endothelium and blood movement, and can effectively improve the damaged coronary artery.

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18 INTERMITTENT HYPOXIA IMPROVES ATHEROSCLEROSIS ASSOCIATED WITH UPREGULATION OF HIF-1α AND NF-κB IN AORTIC ARCH AND SERUM OF RABBITS

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Objectives To investigate the role of HIF-1α and NF-κB in intermittent hypoxia (IH) induced atherosclerosis in rabbits.

Methods New-Zealand White rabbits were exposed to IH for 12 weeks (intermittent hypoxia of 21% O_2 for 30 s and 8% O_2 for 30 s, cyclically repeated for 8 h/day). We randomly assigned 48 male rabbits to groups of normoxia (RA) or IH. The rabbits in the RA group were continuously exposed to room air. After intervention of 4, 8, and 12 weeks, serum and aortic arch tissues were subjected to Elisa and immunohistochemical staining analyses respectively. The formation of atherosclerosis in the aortic arch was observed by HE.

Results The formation of atherosclerosis in aortic tissue was observed by HE staining after IH. Compared with the RA rats, the level of HIF-1α and NF-κB in the serum of IH rats started to increase 4, 8, and 12 weeks after the beginning of the experiment ($p<0.05$). The level of HIF-1α in IH rats was highest at 4 w, and there was no change between 8 w and 12 w ($p>0.05$). NF-κB protein expression was significantly increased after IH ($p<0.05$). HIF-1α and NF-κB positive cells in aortic tissue from IH rabbits were induced to a much higher level compared with normal controls ($p<0.05$). Compared with IH rabbits after 4 w, the positive cells of HIF-1α and NF-κB were higher at 8 w and 12 w after IH ($p<0.05$).

Conclusions IH may, through increased HIF-1α and NF-κB in rabbits, lead to lipid deposition, which leads to the formation of atherosclerosis and the occurrence of cardiovascular and cerebrovascular diseases.

19 EXPERIMENTAL STUDY ON POSTOPERATIVE ADHESIONS BETWEEN TENDON AND DIFFERENT TISSUES

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Objectives The aim of this paper is to observe the gross and histological changes of postoperative adhesions between tendon and different tissues in the same environment in animal models.

Methods Models of flexor tendon rupture and superficial tendon sheath defect were made in chickens, and then the tendons were sutured. Two and four weeks after the operation toe specimens of the surgical site were sampled. By gross and histological observation, adhesion between the tendon and the subcutaneous tissue, and adhesion between the tendon and the remnant tendon sheath were observed, respectively. Fisher exact test was used to analyse the gross observation results.

Results Gross observation: with time, tissue proliferation surrounding the tendon increased. The tissue proliferation between the tendon and the subcutaneous tissue was more than that between the tendon and the remnant tendon sheath. Fisher exact test showed the adhesion between the tendon