

addition, calcium ions also have the effect of reducing vascular permeability. Therefore, calcium ions on white tiger soup has played an important role in clinical efficacy. But its antipyretic effect remains to be further studied.

#### References

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### THE EFFECT OF ZUOGUIYIN ON LIVER AND KIDNEY FUNCTION AND FREE RADICAL METABOLISM OF SUBACUTE AGING MODEL RAT INDUCED BY D-GALACTOSE

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**Abstract** Modern research found that Zuoguiyin has anti-aging effect. In this study, we tested the levels of liver and kidney function and free radical metabolism in each group of experimental rats. To elucidate the relationship between the effect of tonifying kidney yin and anti-aging, and Zuoguiyin's effect on liver and kidney physiological function, the purpose is to provide a basis for the study of anti-aging theory of Zuoguiyin.

**Key words:** Zuoguiyin, Anti-aging

**Objective** Study on Zuoguiyin affecting the liver and kidney function and their free radical metabolism of subacute aging model rat induced by D-galactose, to explore its anti-aging mechanism.

**Materials and methods** Materials :72 healthy SD rats (aged 12 months), females accounted for 50%, body weight (200 ± 20) g ;Zuoguiyin (a prescription for tonifying kidney yin), Liuweidihuangwan; detection kits (CREA, BUN, ALT, AST, ALP, SOD, MDA, T-AOC); D-galactose, vitamin E, saline, other reagents and chemicals were of analytical grade.

**Methods:** 72 SD rats were randomly divided into six groups: control group, model group, administration group (vitamin E group, Zuoguiyin high and low dose group, Liuweidihuangwan group). In addition to the control group, the subcutaneous injection of saline, the other groups of the back of the neck were injected with D-galactose subcutaneous aging model. At the same time, the rats in each administration group were treated with vitamin E, high and low dose Zuoguiyin and Liuweidihuangwan. The control group and the model group were given equal volume of distilled water. After 8 weeks of continuous administration, the abdominal aorta was collected and the liver and kidney tissues were removed. Detection of blood alanine ALT, AST, ALP, CREA, BUN, and free radical metabolism of liver and kidney tissues of SOD, MDA, T-AOC and other indicators of the level.

**Results and discussion** In the liver and kidney function index, compared with the normal control group, the model group except ALT slightly decreased, AST, ALP, CREA and BUN were significantly increased. Compared with the model group, each group of all indexes were decreased; in the metabolism of free radicals, compared with normal control group, the levels of SOD and T-AOC in liver and kidney tissue of rats in model group were significantly decreased, MDA level increased significantly, compared with the model group, the levels of SOD and T-AOC to the organization the medicine group in liver and kidney of rats were significantly increased, MDA decreased significantly.

In the current study of anti-aging, scholars generally recognized that free radical theory proposed by D Harman in 1956, The theory that, under normal circumstances, the body of free radicals can be antioxidant enzymes removed, do not cause damage to cells, When the body of antioxidant enzymes weakened and the number of free radicals increased. this time, too much free radicals will cause the body of DNA, protein and lipid damage, affecting the body's normal function, leading to aging. SOD is the body an important antioxidant, it can remove superoxide anion radical redundant, MDA is a product of lipid peroxidation in vivo, T-AOC is the total antioxidant capacity of various antioxidants, both antioxidant and anti-aging of old modern detection in the important index. The results showed that the Zuoguiyin can increase the levels of SOD and T-AOC in the liver and kidney of rats, and decrease the content of MDA, which is similar to that of vitamin E in western medicine.

Thus, the study shows that Zuoguiyin has the function of improving liver and kidney function and delaying senility.

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