Choroid Theory Guides the Theory of Cardiovascular Event Chain

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Abstract. The theory, cardiovascular disease is one of the most common clinical chronic diseases. Modern medicine has confirmed that cardiovascular diseases are caused by the long-term accumulation and deposition of various pathological products caused by a variety of causes, and most of them are non-specific. Cardiovascular events such as acute myocardial infarction and stroke mainly occur in the occurrence process of cardiovascular diseases and cerebrovascular accidents, so the pathogenesis of cardiovascular and cerebrovascular diseases is very complex and difficult to predict. Therefore, this paper carries out the corresponding discussion on it.

Keywords: Context Theory; Open Collaterals Drugs; Cardiovascular Event Chain; Discussion; Application.

1. Introduction

The theory of vein inherits and develops the theory of "blood line" in the Huangdi Neijing, which systematically expounds the theory of "vascular disease" from the overall perspective of traditional Chinese medicine, which is of great significance for guiding the prevention and treatment of ischemic cardiovascular and cerebrovascular diseases, diabetes and their vascular complications. This article takes cardiovascular disease as the starting point to explore and study the chain theory of cardiovascular events.

2. The Research Situation of the Inhibition of Cardiovascular Event Chain

In recent years, with the acceleration of the modernization process of TCM, TCM syndrome differentiation has made remarkable achievements in the prevention and treatment of cardiovascular diseases, gradually forming the TCM characteristics with "heart qi, blood, liver, spleen, kidney" as the core content, laying a solid foundation for exploring the law of TCM prevention and treatment of cardiovascular diseases. The formation of TCM characteristic advantages provides an important basis for comprehensively improving the ability of TCM to prevent and control cardiovascular diseases in the future. At present, the topic of "guiding the chain of cardiovascular events" in the development plan of traditional Chinese medicine has been studied and achieved certain results. The theory is based on TCM meridians, saying that the cardiovascular disease pathogenesis is thrombosis, blood stasis, blood stasis, blood stasis and phlegm obstruction; the deficiency of the heart; qi deficiency, blood stasis, qi stagnation and blood stasis; the spleen and stomach is the main factor of the chain of cardiovascular events.

3. The Theory is an Important Theory to Guide the Prevention and Treatment of Vascular Diseases

"Blood", is an important part of the TCM theory system, the classics on its physiological state, clinical diagnosis, medical changes, acupuncture treatment have detailed discussion, "spirit shu, nine needle" mentioned in the "born, blood", illustrates the "blood" plays an important role in human life, understand the "veins" operation rules, "veins for blood house", "strong and red, up and down, like needle, big is tendon" anatomical characteristics. In "Lingshu" said: "the five zang organs are stable, blood is accessible, and god is vast", that is, "blood reaches", "the heart is blood", "lung faces a hundred veins", "heart, lung, blood, pulse" is a cycle. The three nine-hou pulse diagnosis method "view its pulse, see its color, to know its cold, heat, poison bi", to distinguish its blood stagnation, occlusion, blood withdrawal, to "blood collection scattered evil blood", "small blood" and other therapies, in order to achieve " blood for blood, not for its disease, to cure its disease[1]." The choroid theory is a systematic theory to study the occurrence and development law of choroidal lesions, basic pathological changes, clinical syndrome characteristics and syndrome differentiation, which has a certain reference role in the prevention and treatment of vascular lesions.

"context" is an important organ in human meridians, but also a complete organ. Based on "vein theory", combined with the morphological characteristics of "vein-vascular system" related "pulse", with cavity, lung connection, venous distinction, stratified segmentation, network distribution; its physiological characteristics is "hide essence gas but not discharge", make relatively stable blood volume and quality; the movement state is the contraction movement with the heartbeat; its function is qi and blood to the whole body, nourishing and metabolism, Tianjin and blood exchange. Qian Lei in the Ming Dynasty "the appendix of the human Mirror Classics" recorded: " 12 meridians, 18 veins, 180 collaterals, and 34 thousand sun collaterals."This point is the same as Zhai Liang's" Meridian Compilation ". Yu Jiayan of the Qing Dynasty also cited this theory in the Medical Gate Law. collaterals Theory. It is estimated that the number of Sun Luo exceeded 16 billion in the meridians, and the saying that "Sun Mai is implicated" is consistent with the relationship between microvessels and microcirculation. It can be seen that the "vein" of traditional Chinese medicine and the blood vessels of modern medicine, the vein derived from the "vein" and the "sun vein" of the middle, small blood vessels and the end of the vein, and microvessels and microcirculation. According to this theory, we propose a new vascular disease, which regards the vascular system as a complete organ, which not only helps to understand the structure, function and metabolic characteristics of the "pulse", but also helps to explore the common pathogenesis and pathological mechanism of vascular diseases, so as to find effective ways to treat vascular diseases.

4. The Practical Significance of Suppressing the Occurrence of Cardiovascular Events

Engels once said, " All existence is based on time and space, beyond time, beyond time and space."Vasculopathy is a complex disease, which is characterized by a holistic, dynamic, complex network and system emergence. It can be damage to the heart, brain, kidney, pancreas, surrounding tissues and other organs, or focus on an organ and develop over time.

The author summarized the development process of cardiovascular disease as: " hypertension, hyperlipidemia, hyperglycemia, hyperglycemia, smoking, etc.), arteriosclerosis + coronary heart disease / myocardial infarction-heart failure> death of the complex lesion process. This paper starts with the above several important pathological links to explore the intervention measures to achieve the purpose of preventing the occurrence and development of cardiovascular disease, which is not only the concept of "treating the disease" in traditional Chinese medicine, but also the latest understanding of cardiovascular disease in modern medicine. After the primary prevention and secondary prevention of modern medicine, the concept of "zero-level prevention" is put forward, whose basic principle is to prevent the spread of risk factors in the whole society through group

intervention. Under the "biological a psychological society" medical mode, social factors on the induction of vascular lesions is more and more obvious, and mental depression increases the risk of cardiovascular disease, fatigue syndrome, fatigue death, fatigue syndrome, overload exercise incidence of metabolic syndrome is becoming higher and higher, it requires us to re-examine the influence of these factors on cardiovascular disease[2]. "Three high" is a high risk factor for atherosclerosis. AS appears in adolescents, and the vulnerability of atherosclerotic plaques has been the main cause of AMI.arrhythmia occurs in 75% to 95% of AMI patients, while the incidence of heart failure from ventricular remodeling after myocardial infarction ranges from 32% to 48%. In addition, patients with cardiac insufficiency have a mortality rate of up to 50% per year. Therefore, to find a common cause of cardiovascular disease, to develop the corresponding treatment plans, to effectively inhibit the development of cardiovascular disease cascade.

5. Study the Intervention Effect of Tongluo Drugs on Cardiovascular Diseases from the Perspective of "Sunluo-One Microvascular" Lesions

According to the relationship of "choroid-vasculature", from the hierarchy of blood vessels to the end of blood vessels, Sunluo has a close relationship with the microvessels and microcirculation at the end of blood vessels. Microvessel is the basic organization of human blood circulation. It not only plays the role of blood transmission, but also plays the role of material exchange with the outside world, energy metabolism and information regulation. In related studies, the use of imaging technology can monitor the structure and secretion function of tissue cells in real time, and further prove the occurrence and development of sunluo-microvessels, indicating that the protection of sunluo-microvessels is a common feature of a series of prescription agents, and the protection of microvessels is an important mechanism in the prescription drugs.

1. Effect of Tongluo drugs on sub-health microvascular damage induced by society, psychology and behavior

Animal models of depression, excessive fatigue and excessive comfort through chronic binding method, diet swimming and high nutrition diet were combined with exercise restriction. The results show that the above three social and psychological factors may cause damage to vascular endothelial structure and lead to homeostasis imbalance of neuroendocrine-immune network related factors. Tongluo Tongluo capsule showed similarities in improving the local lesion-vascular endothelial function compared with simvastatin, but showed a significant modulation of the stable imbalance of one NEI system. The single traditional Chinese medicine ginseng and ventilation of Tongxinluo capsule have obvious curative effect on excessive fatigue and emotional depression. Related research results show that the precursor related to hypertension, high blood lipid also appeared abnormal metabolism, tongxin luo capsule can effectively improve the animal model of plasma acylcarnitine and lipid metabolism disorder, and the protection, and put forward the "advanced intervention, syndrome differentiation" intervention strategy, through psychological counseling, avoid overwork, traditional Chinese medicine syndrome differentiation, prevent three high risk factors of occurrence as early as possible.

2. Effect of collaterals drugs on AS microvascular injury

The observation of the pleated microcirculation of the three high risk factors, the results show that the pleated "sunluo-microvessels" of hypertension patients showed obvious changes: "sunluo yu urgent" microvasospasm and "sunluo loss" microvessels decrease and disappear; high blood lipid is mainly "sunluo stasis" (blood flow slow, white microthrombus generation); high blood glucose patients have "sunluo breeding" phenomenon, that is, the number of microvessels increases and cross deformity. At the same time, Tongxinluo capsule can significantly improve the microcirculation morphology, flow state and circular state of carotid atherosclerosis.

3. Effects of collaterals drugs on capillary proliferation of vascular wall and capillaries in damaged plaque

There are physiological nourishing vessels in the outer membrane of AS patients, but the abnormal growth of microvessels appears earlier than AS and is closely related to the pathogenesis of AS. Tongxincapsule acts through anti-inflammatory, antioxidant, inhibition of nuclear transcription factors, promotion of Nrf2 nuclear translocation, activation of DLL4 / Notch signaling, and inhibition of p38MAPK pathway activation[3]. In the study of stable plaque, Tongxinluo capsule can inhibit the migration and tubular formation of in vitro and the adhesion of monocytes and endothelial cells, it can inhibit nutrient proliferation in high-fat diet, reduce rat plaque burden and stabilize AS. Its mechanism is related to the activation of Bmx and NF + <B / JNK / p38 signaling pathway.

4. No effect of flux drugs on reflow microvascular damage in AMI

The structural integrity of microvessels, microvasospasm, thromboembolism, vascular reperfusion, etc., cannot obtain adequate blood circulation. At present, some scholars have put forward the concept of "myocardial perfusion unit", and believe that myocardial ischemia and reperfusion and ischemia and reperfusion injury are its important basis. Whole animal test results show that: tongxin luo capsule obviously protects the structure and function of microvascular endothelial cells, reduce the circulating endothelial cells, promote microvascular regeneration, reduce the damage of inflammation, and can inhibit cardiomyocyte death, thus improve the ischemic area of cardiomyocytes and mitochondrial edema, the expression of endothelial-nitrogen oxide synthase can significantly reduce myocardial ischemia model ischemia and ischemia reperfusion. In vitro experiments have proved that it can promote the autophagy of myocardial tissue endothelium, thus reducing the apoptosis of myocardial tissue; the effect of reducing the endothelial cell apoptosis after hypoxic / reoxygenation is closely related to the synergistic effect of PI3K and ERK pathways.

5. Observation of the efficacy of Tongluo drugs in AMI myocardial ischemia microvessels

The formation of arrhythmia is mainly due to the abnormalities of cardiomyocyte ion current and excitation conduction, and myocardial ischemia and microvascular structure damage can lead to structure reconstruction, electrical remodeling, nerve remodeling, leading to the formation of arrhythmia, to promote the repair of ischemia, improve the local blood supply, is an important means of arrhythmia drug treatment [4]. Using myocardial microcirculation, proved that the effect of collaterals agent has obvious increase microvessel density, blood flow velocity, myocardial blood flow velocity, change nerve remodeling, change nerve reconstruction, enhance cardiac function reconstruction, improve cardiac function caused by increased pressure load, shorten the cardiac function refractory period and movement potential caused by pressure load.

In short, the meridian theory is the inheritance and development of the "blood" theory of "internal Jing", which will be conducive to guiding the prevention and treatment of diseases with the overall and systematic characteristics of traditional Chinese medicine, which is of great significance to promoting the innovative development of "pulse science". Sunluo is closely related to blood vessels and microcirculation, and the role of sunluo-microangiopathy in the occurrence and development of the cardiovascular system is explored to find an important mechanism to inhibit the progression of cardiovascular disease. Through the modern detection of microvessels and microcirculation, it is proved that a series of drugs developed under the guidance of meridian theory have achieved a comprehensive prevention and treatment effect through the structure of microvessels and especially of microvascular endothelial cells, thus opening up a new way for the prevention and treatment of microvascular diseases.

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