

Treatment of Tachyarrhythmia under the Guidance of Ge Zhi Yu Lu

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Keywords: Tachyarrhythmia, Danxi Zhu, Ge Zhi Yu Lu theory, TCM.

Abstract: In this paper, through the academic research of Danxi Zhu's Ge Zhi Yu Lu, the etiology and pathogenesis of tachyarrhythmias are explored from the perspective of Traditional Chinese medicine from the theory of Yang excess Yin deficiency, phase fire theory, qi blood phlegm stagnation four injury theory. To explore the prevention and treatment strategy of tachyarrhythmia, also through epidemiology, philology to prove its scientific nature.

1. Introduction

Tachyarrhythmia is one of the most serious cardiovascular diseases. Ventricular tachycardia may cause sudden cardiac death. At present, the clinical treatment methods for rapid arrhythmia include anti-arrhythmic drug therapy catheter ablation interventional therapy and implantable cardioverter defibrillator implantation. However, the current western medicine treatment has the problem that anti-arrhythmic drugs can cause new arrhythmia side effects, intervention and instrumental therapy are not only invasive, but also have a heavy economic burden, leading to poor acceptance of patients [1]. Tachyarrhythmia is often treated as palpitation and palpitation in TCM, but there is no unified and standardized dialectical classification and mature theoretical system.

2. Physiological characteristics: More Yang, less Yin

Ge Zhi Yu Lu [2] was written by Zhu Danxi himself, and the theory of "Yang is more than Yin is less than Yin" is one of his prominent theories. Zhu shi said, "The sun is also Yang, and is transported outside the moon. The moon is also Yin, the Yin of the human body, its ebb and flow according to the moon." And said, "Therefore, at the age of sixteen a man is proficient and at fourteen a woman is capable of becoming a man by virtue of her Yin and Yang, To be a parent." He said, "A man is at sixty-four years old and utterly devoted; a woman is at forty-nine and utterly exhausted. Husband with Yin qi into, stop for 30 years of audio-visual speech, has been the first loss. Man's lust is endless, and it is difficult to become Yin qi, which is vulnerable to loss. If so, how can it be supplied?" From the natural law "Yang is often full and Yin is often deficient" to the human life "Yin and Yang are often surplus and Yin is often deficient", Zhu concluded the physiological characteristics of "Yang is more than Yin is insufficient". With the progress of current science, Wang Ziyi [3] believes that age, gender,

family history and race among cardiovascular risk factors are congenital unchangeable influences on people, equivalent to "Yin is often insufficient". Hypertension, hyperlipidemia, diabetes, obesity, lack of exercise, smoking, drinking, mental stress and other factors are more than related to people's lifestyle, equivalent to "Yang often more than". Zhang Xiaodong [4] 's understanding of "Excess Yang and insufficient Yin" is not limited to the traditional understanding, but a more detailed understanding of the theory through modern science and technology. Studies show that the human body as the growth of age, the body's beneficial substances are constantly reduced, such as sex hormones, endocrine hormones, ribonucleic acid in nerve cells, lymphocytes and other immune cells or factors, resulting in the decline of various functions in the body, the decline of brain function, causing the disorder or decline of immune function. Same study discovers, the main reason that the person of Yin deficiency plasma viscosity increases is fibrinogen in blood heighten, the macromolecule material such as lipid, all sorts of globulin increases, blood concentration heighten and water liquid phase is opposite reduce, the heat that says namely on traditional Chinese medicine injurys Yin fluid, condense fluid becomes phlegm, become stasis. These harmful substances produce and increase are also closely related to the onset of tachyarrhythmia. The above can be understood as: "Yin deficiency" is the lack of beneficial substances in the human body, "Yang surplus" is the increase of harmful substances in the human body. From Zhu's original understanding of "Yang is more than Yin is less than Yin" to the new understanding of modern research to give us a new understanding of the physiological characteristics of tachyarrhythmia.

Tachyarrhythmia was not specifically recorded in Ge Zhi Yu Lu. Referring to traditional Chinese medicine, diseases can be divided into two parts: external sensation and internal injury. Tachyarrhythmia can be attributed to miscellaneous diseases of internal injury in Traditional Chinese medicine. Tachyarrhythmia includes premature beats of ventricular, atrial fibrillation, ventricular, the characteristic of these diseases is frequent onset, duration has bigger difference, it is the person cannot change, uncontrollable, equivalent to "Yin often insufficient". In addition, tachyarrhythmias are more common in patients with organic heart diseases, such as hypertension, coronary heart disease, valvular heart disease, cardiomyopathy, etc. Modern studies have found that tachyarrhythmia has controllable risk factors, such as hypertension, diabetes, obesity, psychological factors, sleep apnea, smoking, drinking; Tachyarrhythmia can be prevented and controlled by treating the primary disease and changing lifestyle to control risk factors, equivalent to "Yang often has more than one" [5]. From the epidemiological characteristics of tachyarrhythmia, the physiological characteristics of tachyarrhythmia in Traditional Chinese medicine can be demonstrated as "Yang is often more than Yin is often insufficient".

3. Pathogenesis: "Impulsive action of phase fire" and "Qi stagnation and phlegm stagnation block"

"Phase fire theory" is another important theory put forward by Zhu Danxi. Zhu said, "Taiji moves and gives birth to Yang, while static gives birth to Yin." "Yang moves and changes, while Yin is static and merges, and gives birth to water, fire, wood, gold and earth." This is to understand the changes of all things in the world from the movement of Taiji. For people, Zhu believed that "the kidney is responsible for storing essence, which is static and Yin, while the liver is responsible for catharsis, which is dynamic and Yang". Under the action of phase fire, the liver and kidney maintain the human life and growth. This is Zhu's view of physiological fire. Zhu Shi said, "It is easy for the fire of the five natures to rise. Fire starts in the wrong, unpredictable, all the time, suffering true Yin, Yin deficiency disease, Yin to die."; And said, "Heart jun fire is also, for the thing is easy to move, heart is phase fire is also moving, moving is fine from walking, xihuo but from that"; "The Lord has his kidney; Department of drainage, the liver also. There is fire in both organs, and it belongs to the heart.

The heart, your fire, is easily moved by the sensation of things. Heart phase fire also move, move is fine from walking."; This is the pathological phase of fire is evil fire. Zhu divided the phase fire into physiological phase fire and pathological phase fire, and the phase fire is the evil spirit of qi and pathogenic evil fire. Understanding the pathogenesis of tachyarrhythmia from the theory of phase fire: the heart is the official of the monarch, the seven emotions are too extreme or Yin jing is insufficient to cause the heart movement is unusual, phase fire changes, phase fire hyperactive and rashy, then uneasy heart palpitations and restlessness; Phase fire rashly moved extremely, consume sad Yin and liver and kidney Yin, the heart is disturbed; Yin deficiency to decline, Yin can not collect Yang, Yin and Yang do not cross, Yin and Yang separated, then syncope or sudden death; That is, "Yin deficiency is sick, And Yin must die." This is also the same as the clinical symptoms of tachyarrhythmia in modern medicine, palpitation and palpitation in mild cases, syncope or even sudden death in severe cases. When using qi, blood and phlegm stagnation in dialectical tachyarrhythmias, it is particularly necessary to emphasize that Zhu advocated that qi in spleen and stomach is the foundation of the human body. In "On Serious Diseases not keeping taboos", he emphasized that "the husband's stomach is qi, pure and pure, and the qi that people rely on is also living". The basis of treating qi, Blood and phlegm stagnation is the damage of spleen and stomach, especially "spleen Yin". Zhu lived in an era when people lived in a stable and affluent life, with careless diet, excessive lust, excessive drinking and gluttons for pastes, which was also one of the main causes of miscellaneous diseases, which was roughly the same as the bad lifestyle of tachyarrhythmia patients today.

Zhu Danxi did not specifically discuss the theory of qi, blood, phlegm, stagnation and pathogenicity in Ge Zhi Yu Lun, but there are traces to follow. For example, Ge Zhi Yu Lun ·Astringent Pulse Lun said, "The person who is living by virtue of benevolence is also blood and qi. Either because of depression, or because of thick taste, or because of no sweat, or because of the tonic, qi and blood boiling, clear into turbidities, old phlegm lodged drink, glue solid mixed, blocked arteries, can not self."; "Ge Zhiyu theory ·pension theory" said: "husband old man deficiency spleen weak, Yin deficiency impatient... Yin deficiency is difficult to fall, then qi and phlegm."; "Ge Zhi Yu On The Theory of Empty disease phlegm disease like evil" said: "The body of the spirit, god is also, god is declining, evil as a result, or there is reason. As a result, twelve officials will lose their duties. There will be vanity in hearing, hearing, speaking and moving. If you treat them with evil, they will surely die." As "Qi and blood flush together, all diseases do not rise; if there is a crabbed disease, all diseases rise."We can understand the pathogenesis of tachyarrhythmia from the four injury theory of qi, blood, phlegm and stagnation. With the increase of age, the physical change, diet, mood, worry too much life habits all lead to spleen and stomach damage, spleen Yin deficiency, qi and blood consumption injury, qi and blood deficiency, and the heart is disturbed by the loss of mind. If long illness qi and blood deficiency, or because of seven emotions, or because of diet and other external evil invasion, causing qi and blood to promote weakness, pulse line is not smooth, blood stasis, jin stop for phlegm; If spleen deficiency, transport weak, decomposed and weak, body fluid stop gathering for phlegm drink. Phlegm is a disease that stops in the meridians and collaterals, affecting the normal operation of qi and blood. The spleen and stomach with the change of the outside world, worry hurts the spleen, transport abnormal, phlegm dampness block in the jiao, the whole body qi lost in the tune of the seven emotions and move, move rashly, burning Yin, phlegm fire glue burning consume sad Yin, heart throbbing uneasy. The pathogenesis of tachyarrhythmia is mainly related to deficiency of qi and blood, deficiency of qi and Yin, phlegm, stasis, depression and fire. This is also very similar to modern doctors' understanding of this disease. For example, Academician Chen Keji believes that this disease is mostly treated from deficiency, fire, phlegm and blood stasis [6]. Professor Wei Zhizheng proposed that the key to the pathogenesis of tachyarrhythmia lies in stasis and heat [7]. Professor Zhang Xuewen, a master of Traditional Chinese medicine, proposed that "deficiency, stasis and fire" are the main etiology and pathogenesis of arrhythmia [8]. It can also be seen from the above

that Zhu Danxi believed that the occurrence and development of miscellaneous diseases were caused by deficiency of positive qi and external disturbance of evil qi, and proposed that most miscellaneous diseases were mixed with deficiency and reality. Clinically rapidity arrhythmia incidence is also more factors, 86 Cao Xinfu and others through the clinical observation and clinical randomized controlled study, 5684 cases of quickness arrhythmias in patients with TCM syndrome type has carried on the statistical analysis, prompt rapidity of type of syndrome factors of arrhythmia, syndrome factor mainly factors combination between [9].

4. Treatment

There is a saying in Ge Zhi Yu on Treating diseases: "Disease has its root, like grass has its root. The grass remains where the roots go. The cure of illness is gone. The disease is in the viscera but treated, the disease is in the surface and attack, not only slaying the stomach qi, suppression and support disease evil." Zhu Danxi attaches great importance to the concept of healing and seeking the foundation. Tachyarrhythmia is a miscellaneous disease with various etiology and clinical changes, and the clinical symptoms should be good at seeking this. In the treatment of tachyarrhythmias, attention should be paid to nourishing spleen Yin, not to abuse greasy drugs, bitter cold, spicy warm dryness drugs to hinder spleen transport, hurt stomach qi. The fire of Zhu Danxi's rash action also has the difference of false and real in treatment. To the true "mutual fire", Zhu said, "Fire to suppress hair", "hot to cold".

For the principle of treatment, the use of mint, chrysanthemum or coptis, scutellaria and other cool or cold medicine; To the empty "phase fire", the initiative put forward "nourishing Yin and reducing fire" treatment, make good use of the root of the root, a kind of land. Wang Lun, a doctor of later generations, on danxi's experience of treating miscellaneous diseases from qi, blood and phlegm stagnation, proposed that "Danxi can not cure qi, blood and phlegm stagnation. Therefore, there are three medicines to be used: Qi with Sijunzi soup, blood with Siwu soup, phlegm with Erchen soup, long phlegm belongs to depression, and the prescription for treating depression is Yueju Pill "[10]. Zhu Danxi believed that qi, blood and phlegm depression did not exist independently, but were related to each other and treated diseases together. In the theory of Qi and blood, Zhu Danxi used Sijunzi Decoction to replenish qi and Siwu Decoction to replenish blood.

In the treatment of phlegm syndrome, Dan Xi took Erchen Tang as the basic prescription, believing that "Erchen Tang all the phlegm management, if you want to go down, add the drug, in the upper, add the drug". Zhu Danxi treatment of depression, the creation of the Yueju pill, this side focuses on qi to relieve depression, so that qi to blood, qi free phlegm, fire, wet, food, depression is also easy to resolve. However, Zhu Danxi's treatment of miscellaneous diseases is more common than that of contemporary TRADITIONAL Chinese medicine in treating tachyarrhythmia. For example, Wang Mengchao [11] et al., through data mining medical cases of tachyarrhythmia treated by Traditional Chinese medicine masters, conducted a retrospective study on tachyarrhythmia treatment by traditional Chinese medicine masters. The characteristics of its medication were summarized as focusing on nourishing Yin and supplementing qi, removing blood stasis and eliminating phlegm. In the frequency of drug use, drugs for supplementing qi, nourishing Yin, promoting blood circulation and reducing phlegm were the most common drugs.

5. Health and nutrition

In His Treatise on Ge Zhi Yu, Zhu Danxi attached great importance to daily health maintenance and adjustment in the treatment of miscellaneous diseases so as to achieve the effect of "preventing diseases". In terms of sentiment, he advocated "positive heart, accept the heart, cultivate the mind", advise people to cultivate their morality and cultivate their nature, pay attention to the mood, you can

"jun fire do not act rashly, phase fire to keep the position", liver and kidney hide Yin to keep the connotation of nourishing the spleen and stomach of the day after tomorrow, eventually make "Yin Pingyang secret, my body changchun". This also coincides with the concept of "two-heart medicine" and emotional consciousness proposed by modern medicine in the prevention and treatment of cardiovascular diseases, including tachyarrhythmia.

In terms of diet Zhu Danxi: "as soon as possible, those who are ignorant, because of longitudinal taste, five tastes, disease peak day diet"; "The things endowed by heaven, like cereals and fruits, are naturally rich in flavor, and food is as good as nourishing Yin." "Meat is abundant, but food is not stronger than food qi." "Wine, wine... It's hot and toxic... It can be seen that Zhu Danxi advocated moderate diet, light diet, avoiding excessive meat eating and alcohol drinking, so as to smooth the circulation of spleen and stomach and make qi and blood easy, which is consistent with the concept of modern high-risk factors for the prevention and treatment of tachyarrhythmias. At the same time, Zhu Danxi attaches great importance to the overall concept of "unity of nature and man", emphasizing the adaptation to the four seasons, such as summer, do not indulge in cold, afraid of "stomach gas injury, its disease is done".

6. Discuss

It has positive guiding significance to explore the etiology and pathogenesis of tachyarrhythmia from Zhu Danxi's "Ge Zhi Yu Lu" academic viewpoint, and also provides us with new methods and new ideas for the standardization of modern medical treatment of tachyarrhythmia and its TCM syndrome types. Of course, we also need to further explore and study the academic ideas of "Ge Zhi Yu Lu" and further verify them in practice, in order to have a positive impact on the prevention and treatment of tachyarrhythmia.

References

- [1] Han Jin Yang; Guo Yulong. Epidemic status and prevention strategies of tachyarrhythmia [J]. *Journal of Chronic Diseases*, 2018, (04): 402-406.
- [2] Zhu DANxi. *Ge Zhiyu Theory* [M]. Beijing: China Traditional Chinese Medicine Press, 2008: 9-66.
- [3] Wang Ziyi. Discussion on prevention and Treatment of Atherosclerosis guided by Zhu Danxi's academic Thought [J]. *Journal of Hunan University of Traditional Chinese Medicine*, 2011, 31(10): 9-11.
- [4] Zhang Xiaodong. On Zhu Danxi's "Yang Excess, Yin Deficiency" [J]. *Jiangsu Traditional Chinese Medicine*, 2012, 44(03): 1-3.
- [5] Han Jin Yang; Guo Yulong. Epidemic status and prevention strategies of tachyarrhythmia [J]. *Journal of Chronic Diseases*, 2018, (04): 402-406.
- [6] Jiang Yue-rong. Experience in the treatment of tachyarrhythmia by combining disease and syndrome [J]. *Chinese Journal of Integrated Traditional and Western Medicine*, 2012, (08): 1136-1137.
- [7] Dai Mei; Zhang Dahui; Zhou Xusheng et al. Wei Zhizhen's clinical experience in differentiation and treatment of tachyarrhythmia [J]. *Beijing Traditional Chinese Medicine*, 2011, 30(05): 343-345.
- [8] Cao Lanxiu; Yan Yafeng. Summary of clinical experience of TCM master Professor Zhang Xuewen in treatment of tachyarrhythmia [J]. *Shaanxi Traditional Chinese Medicine*, 2017, 38(01): 101-102.
- [9] Cao Xinfu; Ming-xue zhou; Li X et al. Distribution of TCM syndromes and regularity of TCM use in tachyarrhythmia [J]. *Journal of Traditional Chinese Medicine*, 2021, (03): 271-276.
- [10] Wang Guan. *Ming medical miscellaneous* [M]. Beijing: People's Medical Publishing House, 1995: 187.
- [11] Wang Mengchao; Li ping. Master Bai Fangfang etc. Based on data mining of national physician quickness arrhythmia treatment drug law [J]. *World Journal of Integrated Chinese and Western Medicine*, 2021, (02): 207-212.