

HERBAL INTERVENTIONS FOR HENOC-SCHÖNLEIN PURPURA NEPHRITIS: EVIDENCE FROM CHINESE MEDICAL LITERATURE

Ling Zhang and Xiaojie Wang

Shaanxi University of Chinese Medicine, Xianyang, Shaanxi

Abstract:

Henoch-Schönlein purpura nephritis (HSPN) is a prevalent secondary glomerular disease, characterized by inflammatory changes in the kidneys stemming from Henoch-Schönlein purpura. Over the past decade, despite advances in renal biopsy technology and the shifting landscape of kidney diseases, HSPN continues to be a significant public health concern. Among patients undergoing renal biopsy, allergic purpura nephritis, including HSPN, remains the most common pathological diagnosis, especially in children aged 6 to 13 years. Clinical presentations typically encompass asymptomatic hematuria and proteinuria, accompanied by extrarenal symptoms such as skin hemorrhagic spots, joint swelling and pain, abdominal discomfort, and dark stools. Serological analysis reveals the presence of IgA-containing immune complexes, electron microscopy identifies mesangial cell and matrix hyperplasia, and electron dense precipitations resembling immune complexes are observed. Treatment strategies vary based on the severity of proteinuria, with options including ACEI/ARB for mild cases and glucocorticoid-based regimens for those with persistent proteinuria. However, these approaches are limited by high recurrence rates and potential adverse reactions. Therefore, there is a pressing need for more effective prevention and treatment methods.

Keywords: Henoch-Schönlein purpura nephritis (HSPN), Secondary glomerular disease, Proteinuria, Immune complexes, Glucocorticoid therapy.

1. Introduction

Henoch-Schönlein purpura nephritis is a small vessel inflammatory change in the kidneys caused by Henoch-Schönlein purpura involving the kidneys. It is a clinically common secondary glomerular disease. Around 2000, Chen Huiping et al^[1], analyzed the data of 10594 cases of renal biopsy and found that Henoch-Schönlein purpura nephritis accounted for secondary nephritis, second only to lupus nephritis. Although with the popularization of renal biopsy technology and the significant increase in the detection rate of secondary kidney diseases, the spectrum of kidney diseases has changed greatly in the past 10 years, according to Huang Yao et al.^[2], among the pathological diagnosis of 9 310 cases of renal biopsy, allergic purpura nephritis accounted for 13.44%, which is still the most common type of pathology, which is similar to the research conclusion of Wei Ji et al.^[3]. And the detection rate of this disease in children is much higher than that of other secondary glomerular diseases, especially in children aged 6~13 years^[4]. It can be seen that Henoch-Schönlein purpura nephritis has become an urgent social public health problem. Clinically, renal manifestations are mainly asymptomatic hematuria and proteinuria, and extrarenal manifestations mainly include: skin hemorrhagic spots and multiple joint swelling pain, abdominal pain, black stool and other symptoms. IgA-Containing Immune Complexes can be detected in patient serum, mesangial cell and matrix hyperplasia can be seen under electron microscopy, and immune complex-like electron dense precipitation^[5]. Patients with clinical proteinuria > 0.5-1g/(d·1.73m²) of Henoch-Schönlein purpura nephritis are often treated with ACEI/ARB; Patients with persistent proteinuria > 1 g/d 1.73 m² after treatment, glucocorticoid-based therapy for six months, patients presenting with nephrotic syndrome or crescentic purpura nephritis with worsening renal function, glucocorticoids plus cytotoxic drugs or immunosuppressants, and plasma exchange if necessary^[6].

However, such prevention and treatment methods cannot correct the obvious shortcomings such as high recurrence rate and adverse reactions^[7].

Although there is no record of the name of "Henoch-Schönlein purpura nephritis" in ancient medical texts in China, it can still be classified as "grape plague", "spot poison", "purpura", "Bloody urine", "Oedema" and other diseases according to its clinical manifestations^[8-9], and it is not difficult to find that traditional Chinese medicine has been widely recognized in reducing side effects, reducing recurrence rate and improving prognosis. At present, the method of literature research has been used to conduct traditional Chinese medicine research on the common diseases, etiology, pathogenesis, treatment methods and prescriptions of Henoch-Schönlein purpura nephritis.

2. Results

2.1 Location of Henoch-Schönlein purpura nephritis

At present, the definition of Henoch-Schönlein purpura nephritis is still based on the symptoms of Henoch-Schönlein purpura associated with signs and symptoms of renal damage, although there is no conclusive relationship between the sequence of sites where symptoms appear and pathology, but a large number of clinical cases still have traces, on the basis of hematuria, proteinuria, extrarenal manifestations can be common in throat redness and pain, both lower limbs and systemic skin purpura^[10].

2.1.1 Throat

A large number of clinical cases show that most children have a history of upper respiratory tract infection^[11-12], or a history of skin infection, and present symptoms such as redness, itching, sore throat, or nasal congestion and sneezing after upper respiratory tract virus infection, or subcutaneous redness, swelling, ulceration and other symptoms after skin virus infection. Throat culture and susceptibility testing in several cases of Henoch-Schönlein purpura have shown that Henoch-Schönlein purpura may be associated with streptococcal infection, but the specific mechanism by which streptococcal infection causes Henoch-Schönlein purpura is unclear^[13].

2.1.2 Both lower limbs

Subcutaneous purpura is mostly the first disease, with buttocks, both lower limbs, bilateral ankles and other weight-bearing or joint parts as more common, patients often present relative scattered hemorrhagic points of different shapes and sizes, slightly more than subcutaneous, pressed without fading. Some patients are more likely to have swollen joints, pain, and limited mobility. In Henoch-Schönlein purpura with more severe skin damage, renal involvement is high^[14].

2.1.3 Systemic symptoms

In addition to the clinical manifestations of skin purpura and joint swelling and pain, Henoch-Schönlein purpura nephritis invades the skin and other organ arterioles and capillaries, causing submucosal and subserosal edema and hemorrhage in the gastrointestinal tract, and the risk of its occurrence is several times higher than that of those without predisposing factors^[15]. The production and precipitation of various immune complexes in the body, so that some inflammatory chemical reactions occur between the glomeruli and the renal interstitium, hematuria is a common sign that Henoch-Schönlein purpura nephritis affects the kidneys, a large amount of protein exuded from the urine, and the development of high blood pressure are signs of more serious kidney problems.

2.2 Etiology of Henoch-Schönlein purpura nephritis

The disease occurs when the body's immune system attacks its own cells and organs, but there is no clear documented cause of antigens belonging to specific infections in Henoch-Schönlein purpura nephritis^[16]. In recent years, a large number of studies have shown that the onset of HSPN is related to IgA-mediated immune damage, including pollen, mosquitoes, infections, food, drugs and other factors, as well as genetic factors, which can become allergens and trigger a series of immune responses in susceptible groups. Traditional Chinese medicine believes that Henoch-Schönlein purpura nephritis is located in the kidneys and affects the spleen and lungs. There are internal and external causes. The external causes are mainly due to insufficient congenital endowments, complex feeling of external evil, most of the external causes are wind evil, heat evil, wet evil, poisonous evil invasion, or accidental eating of Xinwen divergent wind products, or mosquito bites caused by heat poison knots, burning the blood

network, menstrual blood overflows the skin, internal disturbance of internal organs, flowing into the joints, throughout the whole process.

2.2.1 Feeling external evil

Ancient physicians regarded external sensations of wind, heat, humidity and poison as the most common causes, among which wind and evil were the longest, often carrying residual evil. Chen Shigong said: "The grape plague is the evidence that children feel the unhealthy qi of the four times, which does not disperse on the skin, forming large and small bruised and purple spots, the color is like grapes, and it is the evidence that it appears all over the body." (Authenticity) affirms that external unhealthy qi leads to the occurrence of disease;

Modern experts have a similar view. Director Wang Maohong pointed out that the main incidence of purpuric nephritis is due to external wind, cold, and dampness, heat poison, among which wind is the first cause, evil qi or from the mouth and nose or from the fur, the lesion site initially starts from the surface, if the throat is agglomerated for a long time, then follow the foot less yin kidney meridian downward, then invade the kidney, and finally form a fu evil, invading less yin^[17]; Professor Yuan Xiaofeng believed that the initial stage of the disease was caused by wind and heat poison invading the lungs, filling the veins, and breaking blood overflow^[18]; Professor Chen Yiping believes that the inside is the body, the body is hot, the outside is wind, heat, poison, and the inside and outside are knotted, forcing blood to act rashly. Renal injury is seen in hematuria^[19].

2.2.2 Thermal stasis obstruction

The blood is hot inside, burns the blood, the evil heat is tormented, and the blood clots into a clot, resulting in blood not following the menstruation, and overflowing into purpura. "Theory of Warm Epidemic" said: "The heat is more not leaked, and the blood is stasis", and the cloud of "Warm Heat Fengyuan": "Heat is attached to blood and becomes more lingering, and blood becomes hot and more solidified". "The heat hurts the blood, the blood does not dissipate, the inside is empty, and it is a spot out of the skin." Symptoms include fever, purpura of the skin, thirst and drinking, vomiting blood and hemoptysis, and hematuria.

Dr. Zhang Jun believes that stagnate blood, cause blood obstruction, blood does not return to menstruation, and make heavy bleeding increase or reappear, so stasis coagulation is an important link in the pathogenesis of this disease, which runs through the entire end of the disease, especially for patients with multiple onset^[20]. Dr. Zhang Hongwei pointed out that the cause of this disease is mostly due to the flourishing of blood heat or the feeling of six evil spirits, and evil heat and blood heat fight each other; For example, chronic anemia on the body is hot, and because of external evil causing evil heat to curb the blood veins, forcing blood to act in vain and spots. Heat and stasis are the most fundamental pathogenesis of the disease, and the treatment methods are mainly to clear the heat and relieve the surface, cool blood and relieve pain, and dissolve stasis and remove spots^[21].

2.2.3 Dampness toxin impregnation

Pollen, mosquitoes, infections, food, drugs, etc. can be regarded as foreign poisons, and various pathogenic factors with toxic effects in the body can be regarded as internal poisons. "Jing Yue Quanshu" Yun: "Where evil poison is not solved, it goes straight into the yin, and the depression becomes hot, but it causes the liquid to drain and the blood withers, and the spots see the surface of the muscle, and this real poison and evil are consolidated, and the evidence of the drama of the camp guards is also the evidence." "Poisonous and evil wounds, from the outside, see skin purpura, from the inside, see internal organ bleeding. Under the tendency of wet evil, it is easy to develop the disease of both lower limbs, coupled with wet heavy turbidity and stickiness, and poisonous and evil glue, resulting in the disease being prolonged, and the water moisture stops agglomerating, inhibiting the qi machine, further aggravating blood stasis, resulting in blood difficulty returning to menstruation.

Professor Liu Baohou believes that if the humidity and heat are not removed, the protein is difficult to eliminate; The bruising does not disappear, and the hematuria does not stop^[22]. Professor Zou Yanqin believes that Henoch-Schönlein purpura nephritis is persistent and recurrent, which is in line with the characteristics of wet evil and heavy turbidity and stickiness, and wet evil is often combined with other evils, including sore throat, skin purpura, and joint swelling and pain; Medium coke, loss of transport, edema, sputum, proteinuria; It contains scorching, inhibits

the bladder, and injures the kidneys, and can be seen as frequent urination, urgency, hematuria, and turbidity of urine^[23].

2.2.4 Organ weakness

Henoch-Schönlein purpura nephritis is located in the kidneys, but it is also a common result of dysfunction of multiple organs. "Lingshu - The Birth of a Hundred Diseases" cloud: "Wind and rain, cold and heat, must not be empty, evil cannot hurt people alone" lung deficiency, regardless of external evil, external evil invasion, failure to clear up in time, follow the scriptures, often mother and child, injury to the kidneys. In addition, long-term use of hormones and immunosuppressants can damage lung guards, resulting in reduced defense ability and recurrent diseases; Professor Chen Quan believes that when the spleen and kidneys are involved, one is that the water stops, overflows the skin, and edema, and the other is to affect the subtle infusion, and the subtle does not rise and leak^[24]. And spleen deficiency, inability to control blood, deviant blood flourish can be seen hematuria; Kidney deficiency, loss of sealing, difficult to fix subtlety, subtle excretion can be seen proteinuria.

2.2.5 Dual deficiency of qi and yin

Most of the diseases are complex and difficult to heal, modern medicine still regards hormones as first-line drugs for treatment^[25], but long-term use of hormones, more hormone resistance and hormone dependence, so that the clinical efficacy of patients decreases, the recurrence rate increases, "less fire and anger, strong fire and food", traditional Chinese medicine regards hormones as "strong fire" products, large doses or long-term application after the body will appear qi and yin deficiency evidence^[26]. Yin void and fire, blood moves with fire, overflowing outside the veins; Qi is weak, blood is masterless, stagnant and stasis.

Dr. Zhao Shanghua pointed out that Henoch-Schönlein nephritis has a long course, due to the consumption of internal organs, tormenting camp blood, and involving the kidneys, often manifested as qi and yin deficiency, should be combined with the method of invigorating qi and nourishing yin^[27]; Professor Ding Ying believes that the disease in the later stage of the lesion is rapidly prolonged, and the spleen, kidney, qi and yin deficiency, as well as blood stasis for a long time, and external evil, belong to the original virtual standard^[28]. Usually after the extrarenal symptoms are not obvious, only kidney function damage is left, the clinical manifestations are not easy to treat, with continuous and continuous hematuria, proteinuria, spleen and kidney qi yin deficiency as an important reason, often combined with blood stasis for a long time, external evil invasion, is the original false standard.

2.3 Treatment of Henoch-Schönlein purpura nephritis

Professor Liu Baohou advocated ^[22] that it is advisable to distinguish the disease period first, and it is advisable to distinguish the disease phase into acute or chronic phase. The acute stage is characterized by the onset of purpura, mainly by the standard, when the degree of heat poison, blood stasis, wind and evil is distinguished. It can be distinguished from 1. Wind and evil stasis, patients with a history of external wind and fever, often accompanied by painful swallowing, head and face swelling. Fang with silver warp scattered with white flower snake tongue grass, comfrey, madder root, etc.; 2. Damp heat injury, purple spots in the lower limbs, accompanied by chest tightness and bitter mouth, dry mouth and no desire to drink, painful urination and turbidity, self-simulated formula with kidney rehabilitation No. I side addition and subtraction. Chronic stage purple spots mostly subside, and recurrent edema, turbid urine, and blood in the urine can be seen, and deficiency is mainly at this time. It can be divided into 1. Yin deficiency and fire, self-mimic formula kidney rehabilitation II, containing raw astragalus, ginseng, cooked land, dogwood, salt lock yang, yam, motherwort, etc. 2. Spleen and kidney yang deficiency: treatment should be warm yang and qi to replenish the spleen, blood intake and stasis. Add and subtract from the third side of self-simulated renal rehabilitation, including ginseng, cooked land, dogwood, salt lock yang, yam, motherwort, etc.

Professor Kuang Huitao^[29] observed in the clinic that in the early stage of the disease, the wind and evil and the wet evil and the heat evil fought the knot, walked through the channel, injured the blood network, the blood overflowed outside the vein, or penetrated deep into the skin and became purple spots, or invaded the bladder and urethra, injured the pulse path, that is, urine blood, or blood heat knots, burning yin blood, while the blood in the place of menstruation for a long time caused stasis, which is difficult to heal for a long time, or consumed meridian qi and

blood, damaged the spleen and kidneys, and the warm evil did not go, or the right qi was empty and the injury was false and real evidence.

Professor Ye Chuanhui^[30] believes that Henoch-Schönlein purpura nephritis is due to insufficient congenital endowments, the constitution is already weak and hot, there is a fire inside, and then the wind heat, heat and poison, the two heat fight, internal and external weaving, burning blood and spots. The disease is difficult to heal, even if the heat poison gradually recedes, but the qi and yin are deficient, the blood stasis does not disperse, and the disease still recurs.

For a number of literatures involving the classification of diseases and the clinical dialectical thinking of many doctors in Reganping, it is basically recognized that the lungs, spleen and kidneys are the main organs affected, and blood stasis runs throughout. It mostly adopts treatment methods such as clearing heat and moisture, activating blood circulation and removing stasis, strengthening the spleen and tonifying the kidney, invigorating qi and nourishing yin.

3. Summary

In summary, there is a history of external sensation in the onset of Henoch-Schönlein purpura nephritis, the body is always yin and dry, external feeling of rheumatism and humidity, burning blood network, deviant blood spilling out of the skin, internal organs, mainly lungs, spleen and kidneys. Therefore, it can be seen that skin purpura, joint pain, abdominal pain, edema, blood in the urine, turbid urine, in the early stage, focus on clearing heat and detoxification and dampness, and in the later stage, it is to strengthen the spleen and tonify the kidney, invigorate qi and nourish yin, and the whole process is supplemented by blood circulation and stasis. In terms of medication, it is often biased towards supplementation, heat and detoxification, blood circulation and stasis, and the use of anti-allergic drugs. It shows obvious advantages of traditional Chinese medicine in improving the prognosis and recurrence rate of diseases. However, through literature review, it is also found that there is still a lack of unified disease classification in clinical practice, and most of the treatment is based on the clinical experience of individual doctors, which is difficult to systematize and standardize, and is not conducive to promoting treatment, which needs to be further sorted out and standardized.

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