

Acupuncture treatment for chronic kidney disease

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Abstract

Chronic kidney disease, also known as chronic kidney failure, is a condition where kidney function declines gradually over time. The kidneys help filter waste and excess fluids from the bloodstream, which are then expelled through urine. Chronic kidney disease typically develops due to other conditions that place stress on the kidneys. In many cases, it arises from a combination of various health issues. It can be caused by: high blood pressure, diabetes, high cholesterol, kidney infection etc. According to Traditional Chinese Medicine (TCM), the development of chronic kidney disease (CKD) stems from a fundamental deficiency combined with excess manifestations, both of which persist throughout the disease. TCM treatment strategies for CKD primarily focus on invigorating Qi, strengthening kidney function, enhancing blood circulation, dispelling stasis, clearing heat and dampness, eliminating turbidity, and reducing edema. These therapeutic approaches are both multitargeted and multifunctional. In this article is presented a case of 57 years old men with chronic kidney disease, that is, his left kidney is only functioning at 9 percent. He learned about his condition by accident when he had a routine blood test, because he had a problem with high levels of the liver enzymes AST and ALT. He had no symptoms previously. The patient is diabetic and takes metformin tablets. He also has high blood pressure which he controls with tablets Cornelin and Koprenesa. He also as a medicaments use Roswera and Aspirin. He came to our TCM center in September 2024 due to high creatinine and urea. At that time, the doctors recommended dialysis or transplantation due to his kidney condition, but the patient refused and decided to try another type of treatment, namely acupuncture. Initially, he underwent 10 acupuncture treatments, and then had a new blood test where creatinine and urea were within normal limits. He took a month off and then continued with acupuncture treatments every 2 weeks, one treatment. Acupuncture is an effective and safe treatment for improving kidney function and relieving pruritic symptoms in patients with this disease.

Key words: TCM, Acupuncture, Kidney, Creatinine

Introduction

Chronic kidney disease, also known as chronic kidney failure, is a condition where kidney function gradually declines. The kidneys play a crucial role in filtering waste and excess fluids from the blood, which are then expelled through urine. When chronic kidney disease reaches an advanced stage, it can lead to a harmful buildup of fluids, electrolytes, and waste in the body. In the initial stages of chronic kidney disease, there

may be little to no noticeable symptoms. Many people are unaware of the condition until it has significantly progressed. Treatment primarily aims to slow down kidney damage, often by managing the underlying cause. However, even with proper control, kidney damage may still continue to worsen.[1]

Our kidneys have more functional capacity than necessary to maintain overall health. It is possible to have kidney damage without experiencing any symptoms because, even when affected, the kidneys can still perform well enough to keep you feeling normal. For many individuals, the only way to detect kidney disease is through blood and urine tests that assess kidney function. Symptoms of advanced CKD include: chest pain, feeling tired, headache, dry skin, increased or decreased urination, loss of appetite, nausea, sleep problems, vomiting, weight loss, etc. The leading causes of chronic kidney disease are diabetes and high blood pressure. Excess glucose, also known as sugar, in the bloodstream can harm the kidneys' filtering system. Similarly, high blood pressure can weaken blood vessels in the kidneys, reducing their ability to function properly. When these blood vessels are damaged, the kidneys may struggle to efficiently remove waste and excess fluid from the body. Other causes of kidney disease include: an infection, genetic disorder that causes many cysts to grow in the kidneys, disease that affects the entire body, such as lupus and diabetes, heavy metal poisoning, renal artery stenosis, obesity, smoking, etc.[2]

The recommended treatment for CKD varies based on its stage and any other health conditions you may have, including complications related to CKD. Treatment includes medications, nutrition- limiting sodium (salt) intake is essential, and a healthcare professional or kidney dietitian may also recommend adjusting the amount of potassium, phosphorus, and/or calcium in your diet, lifestyle recommendation like to stop smoking, exercise regularly, sleep well, if you are overweight losing weight through a balanced diet and physical activity, manage and reduce stress in life. [3]

Case report

In this article is presented a case of 57 years old men with chronic kidney disease, that is, his left kidney is only functioning at 9 percent. He learned about his condition by accident when he had a routine blood test, because he had a problem with high levels of the liver enzymes AST and ALT. He had no symptoms previously. The patient is diabetic and takes metformin tablets. He also has high blood pressure which he controls with tablets Cornelin and Koprenesa. He also as a medicaments use Roswera and Aspirin. He came to our TCM center in September 2024 due to high creatinine and urea. His creatinine in October was 130 which is high, reference value is < 115, urea was 6.9 reference value is 2.5 - 6.4mmol/L according this laboratory. Initially, he underwent 10 acupuncture treatments, and then had a new blood test where creatinine and urea were within normal limits, creatinine was 105 umol/L and urea was 7.3 reference value is 2.1- 8.1 mmol/L. He also had an abdominal ultrasound, where both kidneys were of normal size, the right kidney with normal parenchyma, the left kidney with markedly reduced parenchyma and bilaterally pronounced cysts.

The acupuncture treatments were made in an acupuncture clinic for acupuncture and TCM in Skopje, North Macedonia by a doctor specialist in acupuncture. Acupuncture treatments were with a duration of 30 to 45 minutes. Treatments were done indoors, on a room temperature, with normal (dry) acupuncture with fine sterile disposable needles sized 0.25x25mm. Acupuncture points used in the treatments are: DU22, GB20, LI4, KI11, KI12, RN2, ST36, SP6 and LV3.

The benefits of Traditional Chinese Medicine (TCM) in treating chronic kidney disease (CKD) are primarily seen in its holistic approach and syndrome differentiation. In TCM, the concept of organs differs from that of modern medicine. According to the *Yellow*

Emperor's Canon of Internal Medicine, the kidney is considered the foundation of true Yin and true Yang, serving as the root of vitality and the storage place for essence. According to Traditional Chinese Medicine (TCM) theory, essence transforms into Qi (vital energy) and generates Blood. Therefore, kidney abnormalities are thought to disrupt overall bodily balance. TCM categorizes chronic kidney disease (CKD) into "edema," "urine retention," and "kidney fatigue." Since CKD is marked by severe proteinuria, the primary affected organs are the spleen and kidneys. Additionally, the kidney is known as the organ of water and plays a vital role in regulating body fluids. When water becomes stagnant, it can lead to the development of dampness and heat. [4]

Acupuncture, a non-pharmacological therapy originating from China, involves the precise insertion of needles into specific body points to serve as an adjunctive treatment for various diseases. Pooled analyses showed that acupuncture treatment has a significant benefit in CKD patients. Several studies have explained this mechanism. Firstly, by promoting blood circulation: acupuncture stimulates the nerves and tissues near acupoints, enhancing blood flow and microcirculation, which contributes to better kidney blood supply. Secondly, acupuncture supports immune system regulation, which can aid in minimizing further kidney tissue damage while promoting repair and regeneration. Thirdly, by influencing the neuroendocrine system: stimulating specific acupoints may help regulate neuroendocrine functions, including the secretion of adrenocorticotrophic hormone.

Conclusion

Acupuncture, a technique in traditional Chinese medicine, has been utilized to treat various diseases. In individuals with CKD, acupuncture helps enhance renal function, lower proteinuria, manage hypertension, address anemia, alleviate pain, and manage various hemodialysis-related complications, including uremic pruritus, insomnia, and fatigue. In conclusion, acupuncture as a safe treatment, has been shown to provide benefits for patients with CKD.

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