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Cupping Therapy as a Complementary Approach to Enhancing Kidney Health: A Review of Current Evidence

[1]Tesleem Omotayo Imran*
Corresponding Author: *imrantesleem15@gmail.com
[1] Department of Physiology, College of Medicine, University of Lagos, Nigeria

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ABSTRACT

Maintaining good kidney health is of paramount importance for the overall well-being and longevity of an individual., The exploration of complementary and alternative therapeutic practices to support overall health including renal function is a subject of growing interest over the years. Cupping therapy is an example of such intervention which has gained attention for its potential benefits in various health issues, including pain management, recovery, gastrointestinal issues, and preventive therapy. This study summarizes the findings from various studies on the impact of cupping therapy on parameters related to kidney health. The review emphasizes the need for further research to establish the efficacy and safety of cupping therapy as a complementary approach in the maintenance of kidney health, prevention and management of renal disorders, as well as the need for standardized practice of its applications.

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Introduction

The human kidney plays in vital role in maintaining the body's homeostasis. It helps to remove waste products of metabolism, and excess fluids from the circulation, regulates the body's electrolyte balance, and also produces hormones that influence important physiological

processes. The kidneys play an indispensable role in sustaining the overall health of the individual, when this delicate balance performed by the kidney is disturbed, it can cause various health problems, This warrants the preservation of kidney health essential for a person's overall well-being and longevity.

Cupping therapy also known as Al-Hijama, an ancient alternative medicine approach, has a longstanding history across diverse global cultures. With its roots in traditional Chinese medicine and very popular among the Muslims and Arab world, this therapeutic method employs specialized cups—typically made of glass, plastics, bamboo, or silicone which are applied to the skin to generate suction. By drawing the skin and underlying tissue into the cups, blood circulation is purportedly enhanced, leading to potential pain relief, reduced inflammation, and muscle relaxation [1]. Although met with controversy on its efficacy and safe use, it is a potential complementary and alternative approach in the management of certain symptoms and complications related to kidney diseases.

Several theories have been proposed to elucidate the diverse effects of cupping therapy and its underlying mechanisms. Pain Modulation theory is also referred to as the Diffuse Noxious Inhibitory Controls (DNICs). According to this theory, the phenomenon of "pain inhibiting pain" suggests that applying two painful stimuli simultaneously can activate a pathway that ultimately leads to the relief of primary pain. In the context of cupping therapy, local vibration or scratching during the procedure is believed to stimulate DNICs, thereby contributing to the alleviation of the primary pain [2].

The reflex zone theory proposes that cupping therapy stimulates skin receptors, enhancing blood flow to affected organs. Reduced circulation and tissue fluids impact organ function. Reflexes facilitated through spinal pathways, can inhibit or excite organ activity. Studies suggest somatic stimulation that occurs during cupping therapy affects various systems, while disturbances in one organ may manifest elsewhere in the body [3][4].

Cupping therapy, in line with the pain-gate theory, influences pain signals from the stimulated area to the brain [5], involving both small- and large-diameter nociceptive nerve fibers. Its potential pain relief effects are linked to anti-nociceptive and anti-irritative mechanisms, possibly through increased impulse frequency and the closure of pain gates [6]. Cupping therapy, following the blood detoxification theory, eliminates toxins and harmful substances, enhancing blood flow to remove obstructions [7]. It may aid in excreting old red blood cells [8] and eliminating heavy metals like mercury, silver, and lead [9].

Material and Methods

A systematic search was conducted using electronic databases, including PubMed, Google Scholar, and relevant academic journals. The search employed keywords such as

"cupping therapy," "renal function," and "kidney health," “blood parameters”.Articles from scientific conferences were excluded from this review.

Results and Discussion

Ref. [10] conducted a randomized controlled trial encompassing 60 healthy individuals aged 18 to 50 years to assess the impact of blood cupping on serum biochemical parameters. The investigation revealed a marked reduction in both systolic and diastolic blood pressure following blood cupping over a period of 10 days, as compared to initial measurements. Moreover, notable enhancements were observed in serum total cholesterol, triglycerides, low-density lipoproteins (LDL), and high-density lipoprotein (HDL) cholesterol levels. Correspondingly, significant declines in serum creatinine and uric acid levels were also evident post-cupping. However, his study noted non-significant alterations in blood urea and glucose levels, and overall findings suggest that blood cupping may potentially mitigate the risk of cardiovascular ailments, and obesity, and contribute to improved kidney function [10].

A study by Ref. [11] evaluated renal function parameters, fasting blood sugar, and endothelial function changes after wet cupping in healthy individuals. The study involved 31 participants aged 30 to 60 years and conducted wet cupping therapy at five treatment points at the study's outset, with a repeat session after three months. Their findings showed that serum urea, and serum creatinine at one, three, and four months significantly reduced when compared with baseline values. Their results also indicated that wet cupping therapy led to significant reductions in FBS, serum urea, and serum creatinine levels at one, three, and four months compared to baseline values. Serum uric acid and systolic blood pressure also showed significant reductions at specific intervals. They also noted a 4.0% reduction in von Willebrand factor (vWF), which is a measure of endothelial function, at four months compared to baseline [11].

In a more recent study conducted by Ref. [12] assessed kidney function, hematological parameters, and lipid profiles among adult women following two weeks of wet cupping therapy, Their findings show a significant improvement in the overall well-being of most of the participants. They also noted that there was a marked increase in the percentage of lymphocytes and platelet count following the wet cupping sessions. And their results also indicated a notable reduction in creatinine and urea levels post-cupping compared to pre-cupping values. Additionally, there was a significant decrease in triglyceride levels, as well as the triglyceride/HDL-cholesterol and LDL/HDL-cholesterol ratios, were observed post-wet cupping amongst these participants. Their findings suggest that wet cupping, as a form of traditional medicine, may serve as a safe and effective approach for mitigating the risks associated with kidney disorders and cardiovascular diseases [12].

Conclusion

These studies consistently indicate that cupping therapy may have a positive impact on various health parameters. Specifically, it appears to contribute to cardiovascular and renal function markers. These observations suggest that cupping therapy could play a role in reducing the risk of cardiovascular disease, and chronic renal conditions, making it a promising avenue for complementary medicine in disease prevention. However, Most of these studies have major limitations such as small sample size, different treatment regimens, treatment duration, and lack of standardized treatment protocols. Further research is warranted to validate these findings and explore the underlying mechanisms of cupping therapy's effects on overall health and kidney function.

Conflict of Interest

The authors declare that there is no conflict of interest.

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Authors



Tesleem Omotayo Imran is a lecturer at Eco Africa College of Health and Management Sciences, Lagos, Nigeria, with a strong passion for integrative health approaches. He holds a master's degree in human Physiology and has made significant contributions through research and publications on topics like digital eye care, the health benefits of Nigella sativa, and cupping therapy. His diverse experience spans research, academic mentorship, and technical support roles with organizations such as the Nigeria League Against Epilepsy and The Epilepsy Ambassador Initiatives (TEAi). His current projects focus on public health awareness and caregiver support for individuals with Down syndrome and epilepsy, initiatives deeply inspired by personal experiences. Guided by a holistic approach to health, he is dedicated to enhancing people's well-being through awareness, research, and health education. (email: imrantesleem15@gmail.com).