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# The Effect of Cupping Therapy on Reducing Uric Acid Levels in Gout Arthritis Patients in Telagawaru Village

Ahmad Zam Zam Harir*[1)], Aoladul Muqarrobin[2)], Iwan Wahyudi[3)], Lalu Hersika Asmawariza[4)]
Source: Zamzamharir016@gmail.com

[1,2,3,4)] Nursing Department, Faculty of Health, Universitas Qamarul Huda Badaruddin Bagu, Indonesia

**ABSTRACT**

Gout, or more commonly known as uric acid, is a chronic inflammatory metabolic disorder characterized by elevated serum uric acid levels. Regular cupping therapy is strongly suspected of stimulating cellular immunity and reducing uric acid. The purpose of this study was to determine the effect of cupping therapy on reducing uric acid levels in gout patients. This research method used a quantitative method with a quasi-experimental design (non-equivalent control group design). The results of the study showed that the statistical test results using the Paired Sample T-Test showed that there was an effect of cupping therapy on changes in uric acid levels in gout arthritis patients with a p-value = 0.000 (p < 0.05). This indicates that cupping therapy is effective in reducing uric acid levels in gout arthritis patients.

**Keywords**: Cupping Therapy, Uric Acid Levels, Gout Arthritis.

## 1. BACKGROUND

Gout, more commonly known as uric acid disease, is a chronic inflammatory metabolic disorder characterized by pathologically elevated serum uric acid levels. The prevalence of gouty arthritis in men increases with age and peaks between 75 and 84 years of age [1]. According to the American College of Rheumatology, gout is a long-standing and potentially disabling inflammatory arthritis, the symptoms of which typically consist of severe episodes of painful inflammation in a single joint. Gout is a form of chronic inflammatory arthritis, most commonly affecting the large joint of the big toe.

According to the 2021 Global Burden of Disease Study by the Institute for Health Metrics and Evaluation (IHME), in 2020, there were more than 55.8 million cases of gout recorded globally, with a prevalence of approximately 659.3 per 100,000 people. This number has increased by 22.5% since 1990 and is projected to reach more than 95.8 million cases by 2050 [2].

Recent research shows that cupping therapy has a significant effect on reducing uric acid levels, especially when performed regularly and over a specific period of time [3]. Regular cupping therapy is strongly suspected of stimulating cellular immunity, thereby increasing the body's resistance to both disease prevention and resistance [4].

Based on the data presented, the increase in gout prevalence globally (>22% since 1990) and the upward trend at the national and local levels in West Nusa Tenggara (NTB) indicate that gout is a significant metabolic problem requiring holistic treatment, thus necessitating cupping therapy to reduce uric acid levels in patients with gouty arthritis.

## 2. RESEARCH METHODS

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This study used a quantitative method with a quasi-experimental design (non-equivalent control group design). This design was used because the researchers wanted to determine the effect of cupping therapy on reducing uric acid levels in gouty arthritis patients. This involved a treatment group and a control group that were not randomly selected. In this design, uric acid levels were measured before and after cupping therapy. The results from both groups were then compared to determine the effect of cupping therapy on reducing uric acid level[5].

The population in this study was all patients diagnosed with gout arthritis in the Labuapi Community Health Center's work area during the past three months, including patients residing in Telagawaru Hamlet, totaling 80 people. Data analysis used univariate and bivariate analysis using the Mann-Whitney U test. Prior to hypothesis testing, normality was tested using the Shapiro-Wilk test and homogeneity was tested using Levene's test.

## 3. RESULTS AND DISCUSSION

Age is a risk factor for gout arthritis, as increasing age leads to decreased kidney function, which can lead to increased uric acid levels in the blood [2]. Furthermore, women are at greater risk of developing gout arthritis, especially after menopause, due to decreased estrogen levels, which play a role in uric acid excretion [6].

Based on the characteristics of respondents in the treatment and control groups, the majority of respondents were aged 40–60 years (29 people, 65.9%). This finding aligns with the theory that gout arthritis generally occurs in older adults due to decreased kidney function and the body's ability to excrete uric acid, resulting in increased uric acid levels in the blood and triggering the deposition of monosodium urate crystals in the joints [7]. Furthermore, most gout sufferers were elderly and complained of joint pain. After warm compresses and lavender aromatherapy intervention, pain levels decreased in most respondents [8].

**Table 1.**

Differences in Uric Acid Levels in the Pre-Test and Post-Test Control Groups

| Variabel | N | Standar Deviasi | Min | M | P-value |
|---|---|---|---|---|---|
| Pre-test | 22 | 1,162 | 5 | 9 | |
| Post-test | 22 | 1,221 | 4 | 9 | 0,072 |

The results of this study indicate that the control group that received no intervention experienced no significant changes in uric acid levels ($p > 0.05$) (Table 1). This is consistent with research showing that cupping therapy is effective in significantly reducing uric acid levels in the intervention group (p-value 0.000), while the control group showed no significant changes [9].

The control group without intervention experienced no significant changes in uric acid levels. This suggests that reducing uric acid levels requires specific interventions, both pharmacological and non-pharmacological [10].

The results of the treatment group study showed that the average uric acid level before cupping therapy was 7.00 mg/dL. After cupping therapy, the average uric acid level decreased to 5.14 mg/dL. This decrease of 1.86 mg/dL indicates a significant change after cupping therapy.

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**Table 2.**
Differences in Uric Acid Levels Between the Pre-Test and Post-Test in the Intervention Group

| variabel | | N | Standar Deviasi | Min | Max | P-value |
|---|---|---|---|---|---|---|
| Pre-test | | 22 | 1,024 | 5 | 9 | |
| Post-test | | 22 | 1,356 | 3 | 8 | 0,000 |

The results of the statistical test using the Paired Sample T-Test showed a p-value of 0.000 ($p < 0.05$), indicating a significant difference between the pre-test and post-test scores in the intervention group. This indicates that cupping therapy significantly reduced uric acid levels in gouty arthritis patients. Previous research also supports these results, finding that the majority of gouty arthritis patients given ginger compresses were elderly, particularly men, with significantly reduced pain levels after the intervention [11].

The decrease in uric acid levels in the intervention group can be explained by the physiological mechanisms of cupping therapy. Cupping therapy involves suctioning the skin's surface, which improves blood circulation and helps remove metabolic waste products from the body. This suction process causes blood stasis containing excess metabolic substances, including uric acid, to be removed from the body. Furthermore, cupping therapy can also increase blood flow to tissues, thereby improving metabolism and accelerating the excretion of uric acid through the kidneys [12] [13] [14].

Other studies have shown that cupping therapy is effective in reducing uric acid levels in gouty arthritis patients, improving metabolism and helping to remove metabolic waste products from the body [15]. Furthermore, regular cupping therapy is effective in significantly reducing uric acid levels [16][17][18].

## 4. CONCLUSION

Based on the results of the study on the Effect of Cupping Therapy on Changes in Uric Acid Levels in Gout Arthritis Patients in Telagawaru Village, within the Labuapi Community Health Center, it can be concluded that the statistical test results using a Paired Sample T-Test indicate an effect of cupping therapy on changes in uric acid levels in gout arthritis patients with a p-value of 0.000 ($p < 0.05$). This indicates that cupping therapy is effective in reducing uric acid levels in gout arthritis patients.

Cupping therapy can help reduce uric acid levels by removing stasis and excess metabolic substances from the body, as well as improving blood circulation, thereby aiding the detoxification process and lowering uric acid levels in the body.

## 5. THANKS

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## BIBLIOGRAPHY

[1] A. Wibowo and N. Kartika, “Terapi bekam terhadap penurunan kadar asam urat,” Jurnal Kesehatan Terapan, vol. 9, no. 1, pp. 34–41, 2023.

[2] World Health Organization, WHO Global Report on Traditional and Complementary Medicine 2019. Geneva: WHO, 2023.

[3] N. Putri, D. Lestari, and R. Hidayat, “Hubungan usia dengan kadar asam urat,” Jurnal Keperawatan Indonesia, vol. 25, no. 2, pp. 110–116, 2022.

[4] H. Widada, A. Prasetyo, and D. Lestari, “Wet cupping therapy and its effect on chronic

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disease management," Journal of Complementary Medicine, vol. 12, no. 1, pp. 44–52, 2024.

[5] Sugiyono, Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta, 2020.

[6] Centers for Disease Control and Prevention, "Gout prevalence and risk factors," 2023.

[7] GBD 2021 Disease and Injury Incidence and Prevalence Collaborators, "Global burden of gout 1990–2019," The Lancet Rheumatology, vol. 3, no. 12, pp. e913–e925, 2021.

[8] R. I. Wiguna, L. Wardani, and A. Muqarrobin, "Intervensi keperawatan berbasis komplementer pada pasien yang mengalami nyeri asam urat: Studi kasus," Profesional Health Journal, vol. 5, no. 1sp, pp. 369–376, 2023.

[9] A. Yumesri, D. Sari, and R. Putra, "Etika penelitian kesehatan pada penelitian komunitas," Jurnal Etika Kesehatan, vol. 3, no. 1, pp. 1–10, 2024.

[10] D. Sari, A. Hidayat, and N. Lestari, "Perubahan kadar asam urat pada kelompok kontrol tanpa intervensi," Jurnal Keperawatan Indonesia, vol. 24, no. 2, pp. 120–126, 2021.

[11] M. Iqbal, S. Rahmawati, and N. Lestari, "Efektivitas kompres jahe terhadap nyeri gout arthritis pada lansia," Jurnal Keperawatan Terapan Indonesia, vol. 9, no. 1, pp. 22–30, 2025.

[12] R. Saputri, "Terapi komplementer dalam praktik keperawatan berbasis bukti," Jurnal Keperawatan Holistik, vol. 9, no. 2, pp. 101–109, 2024.

[13] D. Rahmawati, N. Sari, and S. Wulandari, "Kepatuhan terapi terhadap hasil pengobatan gout arthritis," Jurnal Keperawatan Indonesia, vol. 25, no. 3, pp. 150–157, 2022.

[14] D. Sari, A. Hidayat, and N. Lestari, "Aktivitas fisik dan kadar asam urat," Jurnal Keperawatan Indonesia, vol. 25, no. 3, pp. 150–157, 2022.

[15] D. Nuraini, N. Hidayah, and A. Prasetyo, "Efektivitas terapi bekam terhadap kadar asam urat," Jurnal Keperawatan Indonesia, vol. 24, no. 3, pp. 156–162, 2021.

[16] R. Fitriani, S. Handayani, and N. Wulandari, "Pengaruh terapi bekam terhadap kadar asam urat pada pasien gout arthritis," Jurnal Keperawatan Indonesia, vol. 25, no. 2, pp. 112–118, 2022.

[17] A. Hidayat, S. Wulandari, and D. Putri, "Pengaruh terapi bekam terhadap penurunan kadar asam urat pada pasien gout arthritis," Jurnal Keperawatan Silampari, vol. 6, no. 1, pp. 120–126, 2022.

[18] S. Wulandari, A. Hidayat, and N. Putri, "Pengaruh terapi bekam terhadap penurunan kadar asam urat," Jurnal Keperawatan Indonesia, vol. 26, no. 2, pp. 120–127, 2023.