

Reviving Ancient Wisdom: Evidence-Based Study of Unani Medicines on management of Migraine and Arthritis

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Abstract:

Introduction:

Unani medicine, rooted in Greco-Arabic traditions, offers a holistic approach to healthcare by balancing bodily humors through natural medications derived from plants, minerals, and animals. This traditional system has garnered interest for its efficacy in treating various diseases, including chronic conditions like cancer, neurological disorders, and musculoskeletal diseases. Recent research has also explored its potential in managing COVID-19, highlighting the importance of immune modulation and health promotion.

Methodology:

This study involved analyzing case reports where Unani medicine was used to treat conditions such as migraine, Moyamoya disease, rheumatoid arthritis, and osteoarthritis. Patients were treated with specific Unani formulations, regimenal therapies like Nutool (Irrigation Therapy), Dalak (Massage Therapy), and Takmīd Hār Ratab (Hot and Moist Fomentation). The efficacy of treatments was assessed using scales like the Visual Analogue Scale (VAS) and Knee Injury and Osteoarthritis Outcome Score (KOOS).

Results:

Case reports demonstrated significant improvements in symptoms across various conditions. For instance, migraine patients showed reduced headache frequency and severity, while arthritis patients experienced decreased pain and swelling, and improved joint function. The use of Unani treatments like Zimad and Roghan-e Bishkrapra proved effective in managing joint-related symptoms with minimal adverse effects.

Conclusion:

Unani medicine offers a viable alternative for managing a wide range of conditions, combining traditional knowledge with evidence-based practices. The holistic approach and natural formulations used in Unani medicine provide symptomatic relief and improve the quality of life in patients with chronic and complex diseases. These findings underscore the potential of Unani medicine as an effective and safe therapeutic option.

Keywords: Unani Medicine, Traditional Medicine, Holistic Healthcare, COVID-19, Immune Modulation, Neurological Disorders, Dysmenorrhea, Antioxidant Enzyme Activity, Zahar Mohra (Bezoar), Therapeutic Clays, Osteoarthritis, Rheumatoid Arthritis, Migraine Management.

Introduction:

Unani medicine, a traditional system of medicine with roots in Greco-Arabic traditions, offers a holistic approach to healthcare, focusing on the balance of bodily humors and the use of natural medications derived from plants, minerals, and animals. The efficacy of Unani medications in treating various diseases has been a subject of interest and research. In the context of the current global health crisis, studies have explored the potential of Unani medicine in managing conditions like COVID-19.

Research indicates that Unani medicine emphasizes measures such as the purification of surroundings using herbal fumigants, health promotion, and the use of specific drugs tailored to symptoms during epidemics (1). This approach underscores the importance of immune modulation and health protection, aligning with the holistic principles of Unani medicine (2). Unani medicine's holistic perspective extends to disease management, emphasizing the interconnectedness of various bodily systems. The concept of holism in Unani medicine underscores the need for physicians to understand the fundamental principles of health and disease to effectively manage illnesses. By considering the individual as a whole entity rather than focusing solely on symptoms, Unani medicine aims to provide comprehensive care that addresses the root causes of diseases (3). This approach is particularly relevant in chronic conditions like cancer, where Unani drugs are being explored for their potential benefits in reducing the burden of the disease (4). The therapeutic potential of Unani medications.

extends to a wide range of conditions, including neurological disorders. *Habb-e-Azraqi*, an Unani pharmacopoeial preparation, has been identified as a potent remedy for neurological disorders. This highlights the reliance of Unani medicine on natural drugs for treating diverse medical conditions (5). Furthermore, Unani formulations have demonstrated safety and efficacy in conditions such as osteoarthritis, gout, and rheumatoid arthritis, as evidenced by animal, in vitro, and clinical studies (6). These findings support the traditional use of Unani medicines in managing musculoskeletal disorders and joint diseases (7). In the context

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of specific ailments, Unani medicine offers insights into the management of conditions like dysmenorrhea. The treatment of dysmenorrhea in Unani medicine involves the use of herbs with emmenagogue, antispasmodic, anti-inflammatory, and analgesic properties. Scientific validation of the efficacy of herbs like *Apium graveolens*, *Cuminum cyminum*, and *Nigella sativa* in treating dysmenorrhea underscores the evidence-based approach of Unani medicine (8). Similarly, Unani formulations like *Majun Baladar* have shown promise in ameliorating antioxidant enzyme activities in cerebral ischemic damage, highlighting their neuroprotective potential (9). The traditional knowledge embedded in Unani medicine also encompasses the use of minerals and natural substances like *Zahar Mohra* (*Bezoar*) for treating epidemic diseases and poisoning. *Zahar Mohra* is recognized in Unani medicine for its alexipharmic properties, making it a valuable antidote in various toxicological situations (10). Additionally, the therapeutic efficacy of Urinile against gouty arthritis exemplifies the utilization of herbal medicines in addressing specific conditions like gout (11). Unani medicine's rich pharmacopeia includes diverse substances like therapeutic clays, which have been used both externally and internally for their medicinal properties. The historical use of therapeutic clays in stopping bleeding and treating various ailments aligns with the traditional practices of Unani and Greek civilizations (12). Furthermore, the transformation of culinary spices like *Zingiber officinale* (*Zanjabeel*) into multifunctional medicines underscores the versatility of natural substances in Unani pharmacology (13). The concept of *Mizaj*, which forms the basis of diagnosis and treatment in Unani medicine, plays a crucial role in evaluating the quality of life in patients with conditions like headaches. Understanding the *Mizaj* of individuals allows Unani practitioners to tailor treatments that address the underlying imbalances contributing to health issues (14). Moreover, the Unani perspective on managing epidemic diseases like COVID-19 emphasizes preventive measures and health promotion through essential factors of life, reflecting the system's emphasis on holistic well-being (15). In conclusion, Unani medicine offers a comprehensive and holistic approach to healthcare, drawing on centuries-old traditions and natural remedies to manage a wide range of diseases. The evidence-based research on Unani medications underscores their potential efficacy in conditions ranging from neurological disorders to musculoskeletal ailments. By integrating traditional knowledge with modern scientific validation, Unani medicine continues to provide valuable insights into alternative approaches to healthcare.

Case Report no 01: Eastern medicines on the management of migraine:

A 45-year-old woman presented to the outpatient department at Ajmal Khan Tibbiya College and Hospital, complaining of severe unilateral headaches that began 2-3 years ago (16). The headaches, rated 9/10 on the Numeric Pain Rating Scale, lasted 2-3 days and were associated with nausea and vomiting. She experienced 16-20 episodes per month, exacerbated by loud noises and flashing lights. Despite taking allopathic medications such as metoclopramide, amitriptyline, propranolol, tramadol, acetaminophen, and ibuprofen since 2018, she found no relief. Upon examination, the patient exhibited no signs of systemic illness, and MR brain imaging showed linear altered signal intensity areas in the left parietal lobes. Initial Unani treatment

included *Nazli* (Hamdard) 6g, *Khameera Gauzaban Sada* 6g, *Uood Saleeb* (*Paeonia emodi*) 1g, *Barshasha* 1g, and *Itrifal Ustukhudus* 9g. After one month, her headache frequency reduced to 10-12 episodes per month with decreased duration and severity.

Due to persistent symptoms, additional Unani medications were prescribed, including *Asaroon* (*Valeriana wallichii*), *Baboona* (*Matricaria chamomilla*), *Filfil Siyah* (*Piper longum*), and *Ustukhudus* (*Lavandula stoechas*). Over six months, the patient experienced significant improvement, with headaches reducing to once weekly, lasting 5-6 hours, and rated 4/10 in severity. Her quality of life improved as the treatment also alleviated associated insomnia, generalized anxiety disorder (GAD), and depression.

Case report no 02:

A 40-year-old male patient from a low socio-economic background visited the OPD at the Regional Research Institute of Unani Medicine, Srinagar, in March 2018 (17). He reported episodic throbbing and pulsating headaches on one side of his head, alternating sides, for over 10 years. The headaches occurred weekly, lasting several hours, and were alleviated by tablets like Headset or Vasograin. His symptoms included moderate to severe pain, nausea, vomiting, photophobia, and phonophobia. Aggravating factors included an empty stomach, traveling, sunlight exposure, and inadequate sleep. Despite a family history of headaches, his medical history revealed no other significant conditions. Examination ruled out other potential causes, and he was diagnosed with migraine.

Regimenal Therapy (Ilaj bit tadbeer):

- Nutool (Irrigation Therapy):** Performed on days 0, 3, 5, 7, 11, 15, 19, and 23 using *Roghan-e-Kaddu* (medicated oil) from Hamdard laboratories.
- Dalak (Massage Therapy):** Daily scalp massage with *Roghan-e-Kaddu* at bedtime for 23 days.

Pharmacotherapy:

- Itrifal Ustukhuddus:** five grams daily in the morning for 23 days.
- Itrifal Kishnizi:** 5 grams at bedtime daily for 23 days.
- Jawarish Shahi:** 5 grams once daily for 23 days.

Assessment and Outcome

The patient's symptoms were evaluated using the Visual Analogue Scale (VAS) over 30 days, including a post-treatment follow-up 7 days after therapy discontinuation. The results showed complete relief from headaches, nausea, vomiting, photophobia, and phonophobia without any adverse reactions.

VAS Scores:

| Sign/Symptom | Da y 0 | Da y 3 | Da y 5 | Da y 7 | Da y 11 | Da y 15 | Da y 19 | Da y 23 | Da y 30 |
|---------------------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| Headache | 10 | 6 | 4 | 2 | 2 | 0 | 0 | 0 | 0 |
| Nausea & Vomiting | 6 | 4 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| Photophobia & Phonophobia | 6 | 4 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |

The Unani treatments, *nutool* and *dalak*, used since ancient times for migraines, were effective in this case. The regimen involved medicated oil applied through irrigation and massage, helping to divert and detoxify morbid substances. *Itrifal Ustukhuddus* and *Itrifal Kishnizi* acted as brain scavengers and sedatives, while *Jawarish Shahi* strengthened vital organs. The

combined regimen resulted in significant symptomatic relief and improved the patient's quality of life.

Case Report 03:

A five-year-old female from Darbhanga District, Bihar, presented with headaches on November 11, 2021 (18). After consulting a pediatrician without relief, a CT scan revealed a brain hemorrhage, leading to admission to a neurology center in Patna, where she recovered in 15 days. Further diagnostics at AIIMS Patna diagnosed Moyamoya disease, with neurosurgeons recommending surgery. Seeking non-invasive treatment, her parents approached Unicure Unani Health Care Centre in Patna.

Unani Treatment Regimen:

1. **Majoon-like compound formulation:**
 - **Ingredients:** *Gule Banafsha* (*Viola odorata*), *Ustukhuddoos* (*Lavandula stoechas*), *Nilofer* (*Nymphaea alba* Linn) in equal parts, prepared in honey.
 - **Dosage:** 3 grams twice daily.
2. **Sikanjbeen Sada:**
 - **Dosage:** 1 teaspoon twice daily.

Duration: All medications were continued for three months.

Outcome

During the treatment period, the patient did not experience headaches or seizures. After completing the three-month regimen, a follow-up DSA (Digital Subtraction Angiography) revealed no signs of Moyamoya disease.

Moyamoya disease involves the progressive narrowing of cerebral blood vessels, leading to circulatory deficiencies. Unani medicine attributes such conditions to "Yabusat" (dryness), which causes vessel narrowing and occlusion. The treatment focused on reducing dryness and improving circulation:

- ***Gule Banafsha* (*Viola odorata*):** Provides sedation, anti-inflammatory, and pain relief properties.
- ***Ustukhuddoos* (*Lavandula stoechas*):** Known for its cephalic benefits, improving brain health, and reducing vascular occlusion.
- ***Nilofer* (*Nymphaea alba* Linn):** Helps relax and widen blood vessels.
- ***Sikanjbeen Sada*:** Enhances the moistening and blood-thinning effects of the formulation.

These combined properties helped alleviate the symptoms by improving cerebral circulation and reducing vessel narrowing. This case demonstrates the potential efficacy of Unani medicine in treating complex conditions like Moyamoya disease through non-invasive means.

Case Report 04: Management of Arthritis with unani medications:

A 52-year-old female diagnosed with Rheumatoid Arthritis (RA), who had been experiencing severe joint pain and stiffness, particularly in her hands, knees, and shoulders for three years (19). Despite previous treatment under modern medicine, her condition severely impacted on her daily life, restricting mobility, and causing difficulty in performing routine tasks. Upon seeking treatment at the Central Research Institute of Unani Medicine, Lucknow, she was initially advised to rest and a diet comprising light, easily digestible foods. Following initial detoxification with *Mun'zij* therapy, which involved soaking and boiling herbs like *Gul-e-Surkh* (*Rosa damascena*), *San-e-Makki* (*Cassia angustifolia*), and *Mughz-e-Filooskhayarshambar* (*Cassia fistula*), the patient underwent *Mus'hil* therapy for purgation. This phase aimed to eliminate toxins and cleanse the

system. Post-purgation, the patient was prescribed *Majoon Suranjan* and *Majoon Azaraq* to be taken twice daily for ongoing management of RA symptoms. *Roghan-e-Surkh* was provided for local application to alleviate joint pain, and *Bakhoor* (steam fomentation) was recommended every 15 days for further relief. Additionally, the patient was advised to take *Habb-e-Suranjan* tablets thrice daily, *Jawarish Shahi* in the morning, and *Habb-e-Kabid Naushadri* after meals to support joint health and overall well-being. Dietary modifications included the consumption of dry fruits such as *figs* (*In-jeer*), along with milk, ghee, butter, and eggs to provide nutritional support and aid in strengthening the body. The patient showed marked improvement in symptoms, with decreased morning stiffness, pain, and increased hemoglobin levels, indicating a positive response to the Unani treatment approach. This case underscores the efficacy of Unani medicines in managing RA symptoms effectively and improving the patient's quality of life without reported adverse effects.

Case Report 05:

A 67-year-old female presented at the OPD of Ajmal Khan Tibbia College, AMU, Aligarh with complaints of pain, swelling, and difficulty in standing and walking due to left knee joint osteoarthritis persisting for eight months (20). She had no history of metabolic disorders, hypertension, or tuberculosis. Physical examination revealed crepitus, tenderness, and mild swelling in the left knee joint, with restricted flexion and extension. X-rays indicated Kellgren-Lawrence Grade 3 osteoarthritis. The diagnosis was *Waja' al-Rukba* (knee osteoarthritis). Treatment involved *Zimad*, a topical semi-solid paste prepared with *Zanjabeel*, *Qust talkh*, *Suranjan*, *Jozbua*, and *Roghan babuna*, applied every alternate day for 28 days over the knee joint area.

The subjective and objective parameters were assessed at baseline, 14th day, and 28th day. Subjective improvements included a decrease in pain intensity from severe to mild, reduction in joint stiffness from moderate to minimal, complete resolution of joint swelling, and improved range of motion from severe restriction to moderate limitation. Objective measurements using the Visual Analogue Scale (VAS), and Western Ontario and McMaster Universities Arthritis Index (WOMAC) demonstrated significant improvement in pain and functional ability.

The effectiveness of *Zimad* in managing knee osteoarthritis symptoms without adverse effects associated with conventional NSAID therapies. The Unani pharmacopeial ingredients in *Zimad* possess anti-inflammatory, analgesic, and nervine tonic properties, contributing to its therapeutic efficacy. Studies on individual components like *Zingiber officinale*, *Saussurea lappa*, *Myristica fragrans*, and *Matricaria chamomile* support their role in reducing pain and inflammation locally. This case study underscores the potential of Unani medicine in providing safe and effective treatment options for knee osteoarthritis, improving patient outcomes and quality of life.

Case Report 06:

A 32-year-old housewife presented with bilateral morning stiffness and pain in multiple joints, predominantly affecting knees and wrists (21). She had no history of systemic illnesses, diabetes, or hypertension. On examination, musculoskeletal findings revealed pain, tenderness, and significant morning stiffness in the wrists and knee joints. Rotation of the wrist joints was notably restricted.

Diagnosed with *Tahajjur Mafasil* based on Unani principles, treatment commenced with *Roghan-e Bishkhabra*, an Unani oil

formulation administered through massage twice daily for two weeks. The patient reported relief from stiffness, pain, and joint deformity as early as the second day of treatment. By the end of the two-week period, morning stiffness reduced to three minutes, pain at rest and swelling completely subsided, and wrist rotation deformity improved significantly to 20° in the left hand with complete relief in the right hand.

Table 1: VAS for Pain

| Assessment Time | VAS Score |
|-----------------|-----------|
| Pretreatment | 7 |
| 7th Day | 8 |
| 14th Day | 2 |

Table 2: VAS for Swelling

| Assessment Time | VAS Score |
|-----------------|-----------|
| Pretreatment | 10 |
| 7th Day | 5 |
| 14th Day | 1 |

Table 3: Morning Stiffness (In Minutes)

| Assessment Time | Duration of Morning Stiffness |
|-----------------|-------------------------------|
| Pretreatment | 30 min |
| 7th Day | 5 min |
| 14th Day | 2 min |

Tables 1 to 3 summarize the progressive improvement measured using the Visual Analogue Scale (VAS) for pain and swelling, and the duration of morning stiffness. VAS scores for pain decreased from 7 at baseline to 2 by the 14th day and swelling reduced from 10 to 1. Morning stiffness duration decreased from 30 minutes initially to 2 minutes by the end of the treatment period.

This case illustrates the efficacy of Unani treatment, specifically *Roghan-e Biskhapra* massage, in managing symptoms of *Tahajjur Mafasil*, providing rapid relief and significant functional improvement without reported adverse effects.

Case Report 07:

A 24-year-old female patient presented with bilateral pain, stiffness, and swelling in the wrist, shoulder, and knee joints persisting for three years (21). She had no prior systemic diseases or relevant family history. Upon musculoskeletal examination, tenderness, swelling, and marked stiffness were noted at the affected joints. A diagnosis of *Tahajjur Mafasil* due to *Balghami Madda* involvement was made according to Unani principles. The patient underwent treatment with *Roghan-e Biskhapra*, an Unani massage oil formulation. Significant symptom relief was observed from the first day of treatment, and after two weeks of massage therapy, morning stiffness, pain at rest, and swelling completely subsided, with residual pain only noted after strenuous physical activity like washing clothes.

Medication Details and Dosage: The treatment consisted of daily massage with *Roghan-e Biskhapra*, applied twice a day for two weeks.

Table 4: VAS for Pain

| Assessment Time | VAS Score |
|-----------------|-----------|
| Pretreatment | 10 |
| 7th Day | 6 |
| 14th Day | 1 |

Table 5: VAS for Swelling

| Assessment Time | VAS Score |
|-----------------|-----------|
| Pretreatment | 10 |
| 7th Day | 5 |
| 14th Day | 2 |

Table 6: Morning Stiffness (In Minutes)

| Assessment Time | Duration of Morning Stiffness |
|-----------------|-------------------------------|
| Pretreatment | 20 min |
| 7th Day | 5 min |
| 14th Day | No stiffness |

This case study highlights the efficacy of Unani medicine, specifically *Roghan-e Biskhapra*, in managing symptoms of rheumatoid arthritis without notable adverse effects, providing significant relief in pain, swelling, and morning stiffness over a short treatment period.

Case Report 08:

A 61-year-old male patient was admitted to the male ward of the National Institute of Unani Medicine in Bangalore, Karnataka, in March 2018, presenting with pain in both knee joints, along with swelling and mild tenderness for the past year (22). The patient experienced severe pain during daily activities, which was aggravated by walking, climbing stairs, and performing heavy work. He also reported cracking or grinding with joint movement. There was no history of hypertension, metabolic disease, tuberculosis, trauma, or knee injury, and no family history of such complaints. The patient had occasionally taken non-steroidal anti-inflammatory drugs (NSAIDs).

Upon examination, the patient's vitals were within normal limits, and no abnormalities were detected through a systemic examination. Physical examination revealed an antalgic gait due to pain, crepitus on passive knee flexion, mild swelling, and tenderness in the knee joints, with painful and restricted movement and bony enlargement. Special questions relevant to knee osteoarthritis (OA) were asked, such as acute injury, swelling, locking of the knee, generalized pain, pain at rest, pain rising from a chair, pain climbing stairs, inactivity stiffness, and night pain. Precautionary laboratory investigations were conducted, including hemoglobin percentage (Hb%), erythrocyte sedimentation rate (ESR), fasting blood sugar (FBS), postprandial blood sugar (PPBS), blood urea, serum creatinine, serum uric acid, rheumatoid factor (Rh factor), antistreptolysin O titer, C-reactive protein, and liver function tests (SGOT and SGPT). X-rays revealed normal bilateral tibial spikes, osteophytes in both knee joints, and reduced bilateral knee joint spaces. Based on these findings, the case was diagnosed as *Waja' al-Rakba* (Knee OA).

For treatment, the patient underwent *Takmīd Hār Ratab* (hot and moist fomentation). Dried crude drugs, including *Bābūna* (*Matricaria chamomilla*), *Nākhūna* (*Astragalus homosus*), *Mako Khushk* (*Solanum nigrum*), *Gul-i-tīsū* (*Butea frondosa*), *Sūranjān Talkh* (*Colchicum luteum*), and *Namak-i-Lāhori* (*Sodium chlorate*), were soaked in fresh water and boiled until the water was reduced by half. The resulting decoction, at approximately 40°C, was applied to the knees using towels for 15 minutes, with 10 sessions on alternate days. In addition, *Habb-i-Sūranjān*, an Unani compound pill, was administered orally at a dosage of 2 tablets twice daily for 30 days.

The efficacy of the treatment was assessed using the Knee Injury and Osteoarthritis Outcome Score (KOOS), which evaluates pain, other symptoms, function in daily living (ADL), and quality of life (QoL). The assessment revealed significant improvement: pain scores improved from 52.77 to 69, other symptoms from 39.58 to 82, ADL from 41.17 to 76, and QoL from 31.25 to 75 after 30 days.

The treatment's effectiveness is attributed to the anti-inflammatory, analgesic, and demulcent properties of the ingredients used in the decoction and pills. These properties helped divert morbid matter from the diseased part to healthy parts, resolve inflammation, and strengthen the knee joints. The oral administration of Habb-i-Sūranjān, with its purgative and diuretic properties, further helped evacuate the morbid matter from the joints. The combination of these treatments resulted in marked symptom relief and improved the patient's ability to perform daily activities, highlighting the effectiveness of Unani medicine in managing knee osteoarthritis with minimal side effects.

Table 1: KOOS Assessment Scores

| Parameter | Before Treatment (BT) | After Treatment (30 Days) |
|----------------------------------|-----------------------|---------------------------|
| Pain | 52.77 | 69 |
| Other symptoms | 39.58 | 82 |
| Activities in daily living (ADL) | 41.17 | 76 |
| Quality of life (QoL) | 31.25 | 75 |

Table 2: Ingredients of Habb-i-Sūranjān

| Unani Name | Botanical Name | Temperament | Action in Internal Use | Quantity |
|-----------------|--------------------|--------------------------------|---|---------------------|
| Sibr Saqūtarī | Aloe barbadensis | Hot & Dry in 2nd degree | Deobstruent, resolvent | 140 gm (140 darhum) |
| Halila Zard | Terminalia chebula | Cold in 1st & Dry 2nd degree | Purgative of yellow bile | 70 gm (70 darhum) |
| Sūranjān shīrin | Colchicum luteum | Hot in 3rd & Dry in 2nd degree | Anti-inflammatory, analgesic, deobstruent | 70 gm (70 darhum) |

Table 3: Ingredients of Takmīd Hār Ratab (Hot and Moist Fomentation)

| Unani Name | Botanical Name | Temperament | Action in Local Application | Quantity |
|------------|-----------------------|--------------------------------|---|----------|
| Bābūnah | Matricaria chamomilla | Hot in 2nd & Dry in 1st degree | Anti-inflammatory, demulcent, nerve tonic | 12 |
| Nākhūna | Astragalus homosus | Hot in 2nd & Dry 2nd degree | Anti-inflammatory, | 12 |

| | | | | |
|----------------|------------------|------------------------------|--|----|
| | | | rubefacient, desiccant, softening the inflammation | |
| Makokhushk | Solanum nigrum | Cold in 2nd & Dry 2nd degree | Demulcent, desiccant, anti-inflammatory, divergent | 12 |
| Gul-i-tisū | Butea frondosa | Cold & Dry (near to hot) | Anti-inflammatory, astringent, analgesic | 12 |
| Sūranjān Talkh | Colchicum luteum | Hot & Dry in 3rd degree | Anti-inflammatory, deobstruent, analgesic | 12 |
| Namak-i-Lāhori | Sodium chlorate | Hot & Dry in 2nd degree | Antiseptic, anti-inflammatory | 12 |

Discussion:

The findings in this study underscore the potential of Unani medicine in managing various health conditions, particularly musculoskeletal disorders, and joint diseases. The scientific validation of traditional Unani herbs and formulations highlights their effectiveness in treating specific ailments such as dysmenorrhea, cerebral ischemic damage, and gouty arthritis. For instance, the use of herbs like *Apium graveolens*, *Cuminum cyminum*, and *Nigella sativa* in treating dysmenorrhea has been supported by evidence demonstrating their emmenagogue, antispasmodic, anti-inflammatory, and analgesic properties (Reviving Ancient Wisdom). Similarly, Unani formulations like *Majun Baladar* have shown promise in enhancing antioxidant enzyme activities in cerebral ischemic damage, emphasizing their neuroprotective potential.

Furthermore, the traditional knowledge of Unani medicine includes the use of minerals and natural substances such as *Zahar Mohra* (Bezoar) for treating epidemic diseases and poisoning due to their alexipharmic properties, making them valuable antidotes in various toxicological situations. The therapeutic efficacy of Urinile against gouty arthritis further exemplifies the effectiveness of herbal medicines in addressing specific conditions. Additionally, therapeutic clays, which have been used historically in both Unani and Greek civilizations, continue to be relevant for their medicinal properties, both externally and internally.

Unani medicine's rich pharmacopeia, including multifunctional spices like *Zingiber officinale* (Zanjabeel), underscores the versatility of natural substances in Unani pharmacology. The concept of *Mizaj*, which forms the basis of diagnosis and treatment in Unani medicine, is crucial in evaluating the quality of life in patients, as it allows practitioners to tailor treatments that address underlying imbalances contributing to health issues. Moreover, the Unani perspective on managing epidemic diseases, such as COVID-19, emphasizes preventive measures and health promotion through essential factors of life, reflecting the system's holistic approach to well-being. This holistic

approach is also evident in the management of chronic conditions like arthritis, where Unani treatments have shown significant improvements in symptoms and quality of life without adverse effects.

Conclusion

In conclusion, Unani medicine offers a comprehensive and holistic approach to healthcare by integrating centuries-old traditions with modern scientific validation. The evidence-based research on Unani medications highlights their potential efficacy in treating a wide range of conditions, from neurological disorders to musculoskeletal ailments. By focusing on the balance of bodily humors and the use of natural remedies derived from plants, minerals, and animals, Unani medicine continues to provide valuable insights into alternative healthcare approaches. The holistic perspective of Unani medicine, which emphasizes the interconnectedness of various bodily systems and the importance of addressing the root causes of diseases, aligns with contemporary health promotion and disease prevention strategies. Therefore, the integration of traditional knowledge with modern scientific research in Unani medicine holds significant promise for enhancing healthcare outcomes and providing effective, natural treatments for various health conditions.

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