

# Efficacy of Unani Formulations in *Shaqiqqa-i Muzmin* (Chronic Migraine) and its Related Psychological Problems: A Case Report

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## ABSTRACT

The present study describes a case of 45-year-old female who was diagnosed with chronic migraine and had taken allopathic treatment for the past 2 years but there was no relief in headache duration and intensity. The headache was severe in intensity (9/10 according to the Numeric Pain Rating Scale), MIDAS Grade IV (MIDAS Score-25 Severe Disability) throbbing in character, usually last for 2-3 days and often associated with nausea and vomiting. However, the patient got relieved after using Unani formulations as a regular preventive therapy, and add-on therapy in case of persistent poor control and maintenance therapy. The drugs which had given to the patient are the drugs which are used in *Warm-e-Tajawif-i-Anf Muzmin* (chronic sinusitis) but in classical books, it is mentioned that these drugs are equally effective in *Suda-i-Dimaghi* (headache). After 6 months of Unani treatment, headache frequency was reduced to once weekly. And duration was reduced to 5-6 hours in a week. The intensity of pain was mild to moderate in nature (4/10 according to the Numeric Pain Rating Scale) and MIDAS Grade II (MIDAS Mild Disability Score-7). Treatment was also found to be effective in treating insomnia, GAD (generalised anxiety disorder) and depression associated with chronic migraine; hence, improving the quality of life of the patient.

**Keywords;** Chronic migraine; *Shaqiqqa-i Muzmin*; Chronic sinusitis; *Waram-i-Tajawif-i-Anf Muzmin*; *Suda-i-Dimaghi*; Headache.

DOI: 10.5455/jcmr.2023.14.06.3

## INTRODUCTION

Migraine is the second most common cause of headache, and indeed neurological cause of disability in the world, afflicts approximately 15% of women and 6% of men over a 1-year period. It is usually an episodic headache associated with sensitivity to light, sound, or movement, nausea and vomiting. A migraine attack has three phases: premonitory (prodrome), headache phase, and postdrome; each has distinct and sometimes disabling symptoms. About 20-25% of migraine patients have a fourth, aura phase. Migraine can be recognised by its activators, referred to as triggers.

Migraineurs are particularly sensitive to environmental and sensory stimuli, which is amplified in females during the menstrual cycle. Headache can be initiated or amplified by various triggers, such as glare, bright lights, sounds, hunger, let-down from stress, physical exertion, stormy weather, barometric pressure changes, hormonal fluctuations during menses, lack of excess sleep, and alcohol or other chemical stimulation. Knowledge of patient's susceptibility to specific triggers can be useful in management strategies involving lifestyle adjustments, although it is becoming recognized that some apparent triggers may in fact be part of the initial phase of the attack; i.e. the premonitory phase or prodrome (1).

Migraine negatively affects health-related quality of life (HRQOL) and contributes to difficulties in daily life, independently of comorbidities. Because of this, the World Health Organization (WHO) recognizes migraine as a high priority public health problem (1). The name "Shaqiqa" is derived from the Arabic word "Shiq," which means "a part" or "a side" in accordance with Unani philosophy. According to classical literature, it is a sort of *Suda* (headache) that only affects one side of the head, and is caused by morbid materials and *Bukharat-i-Radiya* (morbid

vapours) resulting from *Khilt Radi* (morbid humours) that are either excessively large in amount, too hot, or too cold are the causes of it. It frequently develops from major *Su'-i-Mizaj Maddi* (abnormal substantial temperamental) and there are two subtypes: *Shaqiqa Harra* (acute migraine) and *Shaqiqa Barida* (chronic migraine). The primary goals of treatment are to rid the body of unhealthy materials and to strengthen the brain by taking *Muqawwiyat-i-Dimagh* (brain tonics) (2,3,4,5).

## Case Presentation

A 45-year-old woman came to OPD no.2 of *Moalajat* (Unani Medicine) in Ajmal Khan Tibbiya College and Hospital A.M.U, Aligarh and her registration no. 7557. She complained of headache in one side of her head that began 2-3 years ago. The headache was severe in intensity (9/10 according to the Numeric Pain Rating Scale), MIDAS Grade IV (MIDAS Score-25 Severe Disability) throbbing in character, usually last for 2-3 days and often associated with nausea and vomiting. Pain was 16-20 episodes per month, lasting 2-3 days, and was exacerbated by loud noises and flashing lights. She had no fever, head trauma, syncope, seizure, hypertension, diabetes, coronary artery disease (CAD), or respiratory disease and also not tobacco consumer, and no family history of CAD, stroke or seizures. She has been taking allopathic treatment for headache since 2018, which included metoclopramide, amitriptyline, propranolol, tramadol, acetaminophen and ibuprofen but didn't get any relief even though. The patient used to take 2-3 pain relievers per day, which only resolved

headache for 1-2 hours. However, her headache became severe (9/10 according to Numeric Pain Rating Scale) and unresponsive to analgesics, so she increased the intake of analgesic by herself to get rid of it. The frequency of headache episodes was increased to >20 episodes per month and the duration was 3-4 days.

On examination, the patient was afebrile and had no symptoms of illness, such as bradycardia, pallor, icterus, cyanosis, rash, neck stiffness, or skin pigmentation. The bilateral pupil was normal in size and reactive to light, no lymph nodes were palpable, bilateral carotid pulses were palpable, no cervical bruit was heard and neurological, cardiopulmonary, abdominal, and musculoskeletal examinations were normal. **The MR Brain imaging findings were suggestive of few linear altered signal intensity areas involved LT parietal lobes which appears hypointense on T2W and FLAIR sequences with no evidence of restriction on DW1 or blooming is seen on SW1 sequences.** She has been taking allopathic treatments since 2018, including amitriptyline, tramadol, acetaminophen, rizatriptan and ibuprofen.

The patient was prescribed medication on her first visit- *Nazli* (Hamdard) 6 gram, *Khameera Gauzaban Sada* 6 gram, *Uood Saleeb* (*Paeonia emodi*) 1 gram in powder form mixed in *Khameera Gauzaban Sada* twice a day as *Muqawwi Wa Musakkin A'sab* (nervine tonic), *Mufarrih Wa Muqawwi-i-A'da' Ra'isa* (exhilarant and tonic of vital organs), *Barshasha* 1 gram during acute

attack in acute phase as *Taskin-i-Dard* (analgesia) and *Itrifal Ustukhudus* 9 gram at bed time for 1 month as regular preventive therapy and asked her to visit after 1 month or as needed. After 1 month when she visited again to OPD the severity of headache and duration was mildly decreased. The frequency of headache was reduced to 10-12 episodes per month and duration was 1-2 days (8/10 Numeric Pain Scale) and **MIDAS Grade III (MIDAS Score-20, Severe disability)** however, she still taking analgesics for pain 1-2 tablets per day.

Then further prescribed her drugs which are used in sinusitis but also have *Taskin-i-Dard* (analgesic) and evacuation of *Istifragh-i-Khilt* (causative humour) and *Muhallil-i-Auram* (anti-inflammatory) properties. These drugs were *Asaroon* (*Valeriana wallichii*), *Baboona* (*Matricaria chamomilla*), *Filfil Siyah* (*Piper longum*), *Ustukhudus* (*Lavandula stoechas*) in decoction form 6 gram of each twice a day as add on therapy as there was persistent poor control along with above treatment as maintenance therapy and assessed her monthly for 6 month.

Significant relief has found in headache frequency and also intensity, duration and severity after 6 months of intervention. She needed to take analgesics only once in 15 to 20 days. Headache frequency reduce to once weekly with duration of 5-6 hours with mild to moderate in nature **(4/10 according to the Numeric Pain Rating Scale), MIDAS Grade II (MIDAS Score-7, Mild disability).** This treatment was also found to be effective in treating insomnia, GAD and depression associate

with Chronic Migraine hence, quality of life was improved. The drugs which had given to the patient are the drugs used for the treatment of *Warm-e-Tajawif-i-Anf Muzmin* (chronic sinusitis) but in classical books it is mentioned that these drugs are equally effective in *Suda-i-Dimaghi* (headache) (6).

## DISCUSSION

The core feature of Migraine is a throbbing headache and often unilateral with sensitivity to light, sound, nausea, and exacerbation with head movement. Because of throbbing nature of the pain Migraine has long been regarded as a vascular disorder. Modern imaging has shown that vascular changes are not linked to pain and diameter changes are not linked to treatment. Up to one-third of patients do not have throbbing pain. Migraine is a neurovascular headache, which can be treated with Unani drugs, which are used to treat chronic sinusitis. Classical Unani text states that these are effective in treating headache and have *Muqawwi-i-Dimagh* (brain tonic), *Munaqqi-i-Dimag* (brain purifier), *Muqawwi-i-A'sab* (nervine tonic), *Mufirrih* (exhilarant) properties (Table. 1) and migraine is a type of headache associated with *Du'f Dimagh* (weakness of brain) as per Unani Concept.

*Khameera Gauzaban Sada* is available in market and its key ingredients and method of preparation is mentioned in National Formulary of Unani Medicine Part-V, it has brain tonic effect. *Nazli* is a patent drug of Hamdard laboratory which is recommended to treat cold, catarrh and

sinusitis. Moreover Barshasha is a patent drug of Hamdard laboratory used to abort acute attacks and is recommended for cold, cough, and pain.

**Table 1.** Drugs that were used in the treatment of *Shaqiqa-i Muzmin* (chronic migraine) and their pharmacological actions

DRUGS	PHARMACOLOGICAL ACTIONS
<i>Khameera Gauzaban Sada</i>	<i>Muqawwi-i-Dimagh</i> (brain tonic), <i>Mufirrih Wa Muqawwi-i-A'da' Ra'isa</i> (exhilarant and tonic of vital organs)
<i>Nazli</i>	<i>Nazla-o-Zukam</i> (cold and catarrh)
<i>Barshasha</i>	<i>Nazla-o-Zukam</i> (cold and catarrh), <i>Wajh</i> (pain)
<i>Itrifal Ustukhudus</i>	<i>Muqawwi-i-Dimagh</i> (brain tonic), <i>Munaqqi-i-Dimagh</i> (brain purifier), <i>Muqawwi-i-Asab</i> (nervine tonic), <i>Mufirrih</i> (exhilarant), <i>Warm-e-Tajaweef-e-Anaf Muzmin</i> (chronic sinusitis), <i>Nazla-o-Zukam Barid</i> (chronic catarrh), <i>Surfa</i> (dry cough), <i>Suda-i-Dimagi</i> (headache)
<i>Ood-e-Saleeb (Paeonia emodi)</i> (6)	<i>Muqawwi Wa Musakkin-i-A'sab</i> (nervine tonic), <i>Mufirrih Wa Muqawwi-i-A'da' Ra'isa</i>
<i>Ustukhudus (Lavandula stoechas)</i> (6)	<i>Muqawwi-i-Dimagh</i> (brain tonic), <i>Munaqqi-i-Dimagh</i> (brain purifier), <i>Muqawwi-i-Asab</i> (nervine tonic), <i>Mufirrih</i> (exhilarant), <i>Warm-e-Tajaweef-e-Anaf Muzmin</i> (chronic sinusitis), <i>Nazla-o-Zukam Barid</i> (chronic catarrh), <i>Surfa</i> (dry cough), <i>Suda-i-Dimaghi</i> (headache)
<i>Babuna (Matricaria chamomilla)</i> (6)	<i>Muqawwi-i-Dimagh</i> (brain tonic), <i>Muqawwi-i-A'sab</i> (nervine tonic), <i>Taskeen-i-Dard</i> (analgesia)

<i>Filfil Siyah (Piper longum ) (6)</i>	<i>Muqawwi-i-A'sab</i> (nervine tonic), <i>Muhallil-i-Auram</i> (anti-inflammatory)
<i>Asaroon (Valeriana wallichii) (6)</i>	<i>Muhallil-i-Auram</i> (anti-inflammatory), <i>Muqawwi-i-Dimagh</i> (brainTonic), <i>Muqawwi-i-A'sab</i> (nervine tonic)

Studies have shown that *Matricaria chamomilla* has a powerful central and peripheral analgesic effect comparable to that of the reference medication (morphine and aspirin) (7). *Piper longum* has a strong analgesic effect and a dose-response curve similar to indomethacin in animal models. Piperine's analgesic effect is likely mediated by the opioid pathway, as it significantly inhibits PGE2 and COX-2 production. Studies have shown that piperine increased the oral pharmacokinetics of almotriptan, suggesting that lower doses of almotriptan could reduce its adverse effect in migraine headache patients. The threshold of susceptibility for acute migraine attacks is determined by an individual's level of vulnerability, with higher thresholds resulting in more frequent attacks (8, 9, 10). Jalinoos stated that *shaiqa* is associated with *Du'f Dimagh* (weakness of brain), so the *Muqawwi-i-Dimagh* (brain tonic) drugs could be effective in decreasing the sensitive brain's vulnerability to migraine.

Burstein and colleagues measured a patient's pain thresholds in the head and forearms at various stages during a migraine attack to study the development of cutaneous allodynia in migraine. This study showed that after the

patient's peripheral nociceptors were initially activated, they became sensitized and mediated the symptoms of cranial hypersensitivity. The sensitized second-order neurons then activated and eventually sensitized third-order neurons leading to allodynia on the patient's contralateral head. In a rat model, piperine inhibited carrageenan's ability to cause paw hyperalgesia and could tolerate higher pressure on the affected paw. This antinociceptive effects of piperine could lead to deactivation of the patient's peripheral nociceptors, resulting in desensitization of brain and lessening the symptoms of cranial hypersensitivity (11).

Experimental studies have shown that in animal models of migraine, there is a connection between cortical spreading depression (CSD) and activation of trigeminal nerve afferents. This stimulation causes a string of meningeal and brainstem events that resemble those seen during a migraine attack. The middle meningeal artery's long-lasting blood flow increase is triggered by CSD, and the dura experiences plasma protein leakage. *Musakkin-i-A'sab* (nervine analgesic) could deactivate trigeminal and parasympathetic activation, leading to neurometabolic brain activities (12).

The most important structures that register pain in the head are the large cranial vessels, proximal cerebral vessels and dural arteries, and the large veins and venous sinuses. These were identified by Ray and Wolff during neurosurgery on awake patients using local

anaesthesia. Extracranial branches of the carotid artery became engorged and pulsated during migraine attacks, which could be regarded as a type of *Waram* (inflammation) according to Unani concept. Drugs with *Muhallil-i-Auram* (anti-inflammatory) and *Musakkin* (analgesic) properties could be effective in resolving headache. Chronic migraine can lead to anxiety, depression, insomnia, fatigue, and irritability, making it difficult to manage during peak productivity (13,14).

Drugs with *Mufirrih-wa-Muqawwi-i-A'da' Ra'isa* (exhilarant and tonic of vital organs), and *Musakkin* (analgesic) properties were effective in relieving fatigue, irritability, insomnia, anxiety, and improving quality of life. *Valeriana welchii* (*Asaroon*) has been shown to decrease central nervous system activity in mice, equivalent to that of phenobarbital. It has also been suggested to be effective in treating insomnia and other sleep disorders in humans by reducing the breakdown of  $\gamma$ -aminobutyric acid, resulting in sedation and a decrease in CNS activity (15).

## CONCLUSION

Unani treatment was found to be effective in treating chronic migraine as regular, preventive, add-on therapy and maintenance therapy. It was also found to be effective in treating psychological disorders like insomnia, generalised anxiety disorder and depression associated with chronic migraine. Therefore, understanding and treating migraine in the light of Unani medicine could provide great opportunities in treating migraine and its psychological difficulties.

## FUNDING

None.

## CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

## REFERENCES

1. Fauci Kasper, Longo Hauser *et al.*, Harrison's principles of internal medicine, Vol.2, 19<sup>th</sup> edition, Mc Graw Hill Education, 2018;P- 2586-93.
2. Razi, A.B.M.Z. *Kitabul Mansoori*; 1<sup>st</sup> edition, CCRUM, Dept. of AYUSH, Ministry of Health and Family Welfare, Govt. of India, New Delhi, 1991; P-317-319.
3. Tabri M, *Al-Maolijat-e-Buqratiya* (Urdu translated by CCRUM), Vol.I. CCRUM, Dept. of AYUSH, Ministry of Health and Family Welfare, Govt. of India, New Delhi 1995; P-284-90.
4. Khan MA. *Akseer-e-Azam*, 1<sup>st</sup> edition, Idara Kitab-Ush-Shifa, Darya Ganj, New Delhi, 2011; P-77-81.
5. Arzani HMA. *Meezan-ul-Tib*, 1<sup>st</sup> edition, Idara Kitab-Ush-Shifa, Darya Ganj, New Delhi, 2002; P-46-7.
6. Hakim M.A. *Bustanul Mufradat*,. 1<sup>st</sup> edition, Idara Kitabab-ul-Shifa, Darya Ganj, New Delhi, 2002; P- 66, 67, 108, 398, 503.
7. Hajjaj, G., Bounihi, A., Tajani, M., Cherrah, Y., Zellou, A., & Mohammed (2014). In Vivo Analgesic Activity of Essential Oil and Aqueous Extract of *Matricaria Chamomilla* L. (Asteraceae).
8. Bang JS, Oh DH, Choi HM, Sur BJ, Lim SJ, Kim JY, Yang HI, Yoo MC, Hahm DH, Kim KS. Anti-inflammatory and antiarthritic effects of piperine in human interleukin 1 $\beta$ -stimulated fibroblast-like synoviocytes and in rat arthritis models. *Arthritis Res Ther.* 2009;11(2):R49. doi: 10.1186/ar2662. Epub 2009 Mar 30. PMID: 19327174; PMCID: PMC2688199.

9. Kolakota, R., Bothsa, A., & Mugada, V. (2022). Impact of N-acyl piperidine (Piperine) from Piper nigrum on the Pharmacokinetics of CYP3A Substrate Almotriptan in Rats: doi.org/10.26538/tjnpr/v4i8.10. *Tropical Journal of Natural Product Research (TJNPR)*, 4(8). <https://tjnpr.org/index.php/home/article/view/1154>.
10. Kumar S, Kamboj J, Suman, Sharma S. Overview for various aspects of the health benefits of Piper longum linn. fruit. *J Acupunct Meridian Stud.* 2011 Jun;4(2):134-40. doi: 10.1016/S2005-2901(11)60020-4. PMID: 21704957.
11. Goadsby PJ. Pathophysiology of migraine. *Ann Indian Acad Neurol.* 2012 Aug;15(Suppl 1):S15-22. doi: 10.4103/0972-2327.99993. PMID: 23024559; PMCID: PMC3444225.
12. Burstein R, Cutrer MF, Yarnitsky D. The development of cutaneous allodynia during a migraine attack clinical evidence for the sequential recruitment of spinal and supraspinal nociceptive neurons in migraine. *Brain.* 2000 Aug;123 ( Pt 8):1703-9. doi: 10.1093/brain/123.8.1703. PMID: 10908199.
13. Jahangir S, Adjepong D, Al-Shami H A, et al. (June 10, 2020) Is There an Association Between Migraine and Major Depressive Disorder? A Narrative Review. *Cureus* 12(6): e8551. DOI 10.7759/cureus.8551.
14. Raggi A, Giovannetti AM, Quintas R, D'Amico D, Cieza A, Sabariego C, Bickenbach JE, Leonardi M. A systematic review of the psychosocial difficulties relevant to patients with migraine. *J Headache Pain.* 2012 Nov;13(8):595-606. doi: 10.1007/s10194-012-0482-1. Epub 2012 Sep 23. PMID: 23001069; PMCID: PMC3484254.
15. Zare A, Khaksar Z, Sobhani Z, Amini M. Analgesic Effect of Valerian Root and Turnip Extracts. *World J Plast Surg.* 2018 Sep;7(3):345-350. doi: 10.29252/wjps.7.3.345. PMID: 30560075; PMCID: PMC6290317.