



MAJOON NAJAH: A POTENT UNANI FORMULATION FOR NEUROLOGICAL DISORDERS

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ABSTRACT

Neurological disorders (Epilepsy, depression, dementia, Parkinson's disease etc) are an important cause of mortality and constitute 12% of total deaths globally. Unani system of medicine has a treasure of valuable single and compound formulations. There are several mufrad (single) drugs used to treat neurological disorders such as Aftimoon (*Cuscuta reflexa*), Bisfaij (*Polypodium vulgare*), Turbud (*Operculina turpethum*), Ustukhudoos (*Lavandula stoechas*), Badranjboya (*Nepeta hindostana/ Melissa parviflora*), Ghariqoon (*Agaricus alba*), Kishneez (*Coriandrum sativum*) etc. Among the compound drugs Majoon Najah is one of the polyherbal unani preparations and it has been traditionally used in melancholia, epilepsy, hysteria, insanity, colitis and for saudavi amraaz. MN has been reported for its antidepressant potential in recent years.

KEYWORDS: Majoon Najah, Antidepressant, Neurological disorders, Unani medicine.

INTRODUCTION

According to a recent report published by the World Health Organization "Neurological disorders, public health challenges" it is stated that about one billion people worldwide suffer from neurological disorders which are found among all age groups and that 6.8 million people die annually from these disorders. The spectrum of neurological disorders includes epilepsy, stroke, headache, Alzheimer's disease, dementia, parkinson's disease etc.^[1] In 1996, neurological disorders accounted for 4.2% of the global burden of disease which has notably increased to 6.29% in 2005 assessed by the disability adjusted life years (DALYs) for common neurological disorders such as epilepsy, dementia, parkinson's disease, tetanus, meningitis etc. Further ascent in burden is expected and by 2030 it is estimated to be 6.77%.^[2] Epilepsy is the second most common chronic neurological condition seen by neurologists. It is estimated that there are 55,00,000 persons with epilepsy in India. It is becoming the most serious brain disorder and affects about 50million people and about 100 million will be affected at sometime in their life. Overall, it accounts for 1% of the world's burden of diseases, and the prevalence rate is reported at 0.5-1%.^[3] Currently available antiepileptic drugs are synthetic compounds and have dose related & chronic toxicity involving virtually every major organ system, adverse effects on cognition and behaviour and teratogenic effects.^[4, 5]

According to a survey WHO appraises that 80% of the world population reckon on the medicines of plant origin for their primary healthcare.^[6] Unani system of medicine is one important traditional system of medicine which is one among the oldest systems that abound till date with its effective and profitable drugs derived from plant, animal and mineral sources. According to Unani system of medicine, the methods of treatment comprises of dietotherapy (Ilaj-Bil-Ghiza), regimental therapy (Ilaj-Bil Tadbeer), surgery (Ilaj-Bil-Yad) and pharmacotherapy (Ilaj-Bil-Dawa). Considering pharmacotherapy, both single and compound drugs are being used successfully since hundreds of years in the management of neurological disorders like depression, epilepsy, Parkinson's disease etc. There are several mufrad (single) drugs such as Aftimoon (*Cuscuta reflexa*), Bisfaij (*Polypodium vulgare*), Turbud (*Operculina turpethum*), Ustukhudoos (*lavandula stoechas*), Badranjboya (*Nepeta hindostana/ Melissa parviflora*), Ghariqoon (*Agaricus alba*), Kishneez (*Coriandrum sativum*) etc and many murakkab (formulations) such as Mufarreh Barid, Joshanda Aftimoon, Majoon Najah, Majoon Lana etc that have been described to possess protective activity against neurological disorders.^[7,8,9,10] Among the compound drugs Majoon Najah is one of the polyherbal unani preparations and it has been traditionally used in melancholia,^[11,12] epilepsy,^[13,14] hysteria,^[11,12] insanity,^[12] colitis,^[11] and for black bile disorders.^[11]

Majoon

Majoon is a semisolid medicinal preparation which is obtained by mixing more than one powdered single drugs of plant, animal or mineral origin in the base (*Qiwam*) made of purified honey, sugar, candy or jaggery. These involve preparations like Jawarish, Itrifal, Barshasha, Dawa-ul-Misk, Dabeed-ul-ward, Mufarrehat, Luboob, Khamira and Laooq etc.^[11]

Method of preparation of Majoon

For making Majoon or any of its allied preparations, *Qiwam* (base) of different consistencies (tar) is generally made. It depends on the nature of ingredient drugs to be used. The *Qiwam* is generally made by adding *Aab* (water), *Araq* (distillate) or *Aab e samar* (fruit juices), etc in any of the bases of purified honey, sugar, candy or jiggery etc and boiled over a low fire till it acquires a required consistency. The bases are generally purified by adding *Aab e lemu* (lemon juice), *Satt e lemu* (lemon extract), or *Shibbe yamani* (Alum) before making *Qiwam*. Afterwards the ingredients are mixed in *qiwam* to prepare Majoon. *Qiwam* for majoon is of two tar (consistency).^[11]

Majoon Najah

The name of Majoon Najah is attributed to Harmis Asgar and Jalinoos. The meaning of Najah is salvation and improvement.^[15] Majoon Najah is one of the important polyherbal unani formulation and it has been traditionally used for the treatment of *Malikholia* (melancholia), *Sara* (epilepsy), *Ikhtenagur raham* (hysteria), (insanity), *Qolanj* (colitis), *Junoon* (schizophrenia), *Juzam* (leprosy), *waja-ul-mafasil* (arthritis).^[11] It is much more effective for the treatment of mental diseases which are caused due to excess of *sauda* (black bile). It also purifies blood from thick black bile and acts as a tranquillizer, cephalic tonic and *mushile sauda wa balgham ghaliz* (purgative of black bile and viscid phlegm).^[15,11,16]

Ingredients of Majoon Najah

Majoon Najah (MN) is a preparation which is made from the *qiwam* of white sugar or honey and a medicinal *safoof* (powder) having the following ingredients as per the description of National Formulary of Unani Medicine.^[11]

S. No.	Unani Name	Botanical Name	Parts Used	Quantity
1.	Post-e-halela kabli	<i>Terminalia chebula</i> Retz	Fruit	50g
2.	Post-e-Balela	<i>Terminalia bellerica</i> Roxb	Fruit	50g
3.	Aamla	<i>Emblica officinalis</i>	Fruit	50g
4.	Halela Siyah	<i>Terminalia chebula</i> Retz	Fruit	50g
5.	Turbud	<i>Operculina turpethum</i> Linn	Root	50g
6.	Bisfayej	<i>Polypodium vulgare</i> Linn	Root	25g
7.	Aftimoon	<i>Cuscuta reflexa</i> Roxb.	Whole plant	25g
8.	Ustukhuddus	<i>Lavandula stoechas</i>	Flowers	25g
9.	Qand safaid (Sugar)			600g

Method of preparation of Majoon Najah

MN is prepared as per the procedures, mentioned in the pharmacopeia Part II, Vol. I of National Formulary of Unani Medicine (NFUM).^[1]

1. Powdering the ingredients

As per the classical method, *tirphala* 'Three Myrobalan fruits' (from S.No. 1 to 4) are first dried to evaporate their moisture content and pounded in an iron mortar. Initially gentle pounding is employed to break the drugs into small pieces then vigorous pounding is done till they are ground into coarse powder. The powder is then passed through appropriate mesh sieve.^[17] The remaining ingredients (from S.No.5 to 8) are dried, powdered and sieved separately.

2. Rubbing (*Tad'heen* or *Charb*) the *Tirphala* with almond oil or sesame oil or Ghee.

Tad'heen or *Charb* is the process of correction or detoxification in which dry drug is made oily or rubbed with some special oil. This terminology of pharmaceutics is often used for *Tirphala*.^[9] The powdered *Tirphala* (Separately or with other ingredients of *Majoon* are rubbed with one of the following oils.

Raugahan e Badam (Almond oil)^[18]

Raughn e Zard (Cow Ghee)^[18,19]

Raughan e Bed Injeer (Castor oil)^[20]

3. Mixing the rubbed powder in the *Qiwam*.

For making *Majoon* or any of its allied preparations, *Qiwam* (Base) of different consistencies is generally made, depending on the nature of ingredient drugs to be used in a particular formula. The ingredient drugs in a *Qiwam* may be used either in powder or liquid form.

The *Qiwam* is generally made by adding *Aab* (water), *Arq* (Distillate) or *Aab e Samar* (Fruit Juice) etc., in any of the bases of purified Honey with Sugar, Candy or Jaggery etc., and boiled over a low fire till it acquires a required consistency. The bases are generally purified by adding *Aab e Leemu* (Lemon juice), *Satt e Leemu* (Lemon extract) or *Shibb e Yamani* (Alum) etc. Afterwards, the ingredient drugs are mixed in it, to prepare *Jawarish*, *Majoon*, *Itrifal*, *Halwa*. For making *Majoon* or any of its preparations the consistency of *Qiwam* of *Majoon* is Three *Tar* (consistency).^[18]

Qiwam is made, as described above and all the powdered drugs are mixed in the *Qiwam* to form MN.

Dosage & administration

10g at night with 250ml of milk ^[16,12] 5 to 10gm ^[11]
 7 to 11 gm with water in morning ^[10]
 17gm with lukewarm water ^[13]

Pharmacological actions

- Nervine tonic (*Muqawwi Aasab*) ^[11]
- Blood purifier (*Musaffi-e-dam*) ^[11]
- Purgative of black bile and viscid phlegm (*Mushil-e-Sauda Wa Balgham Ghaliz*) ^[11,13]
- Tranquillizer (*Musakkin*) ^[16]
- Cephalic tonic (*Muqawwi Dimagh*) ^[16]

Therapeutic Uses

- Melancholia (*Malikhuliya*) ^[11,12,13]
- Epilepsy (*Sara*) ^[13,14]
- Hysteria (*Ikhtenaq-Ur-Raham*) ^[11,12,13]
- Colic (*Qolanj*) ^[11]
- Schizophrenia (*Junoon*) ^[15]
- Leprosy (*Juzam*) ^[15]
- Arthritis (*Waja-ul-Mafasil*) ^[15]
- Mental disorders due to excess of sauda ^[15]
- Black bile disorders (*Saudavi amraaz*) ^[10]
- Brain disorders (*Amraz-e-Dimaghi*) ^[13]
- Menopausal symptoms ^[21]

Pharmacological Studies**Antidepressant activity**

Hydroalcoholic extract of MN was tested for antidepressant activity in two animal models viz., Tetrabenazine Antagonism test and Yohimbine Toxicity Enhancement Test (Vogel, 2002) in mice by Shariff F *et al* in 2015. The findings of Tetrabenazine antagonism test suggested that there was a significant reduction of catalepsy and ptosis and Yohimbine toxicity enhancement test suggested that there was a significant increase in the mean mortality rate of test drug, thus concluded that MN possesses significant antidepressant effect. ^[22]

Brief description of Ingredients of MN**Post-e-halela kabli*****Terminalia chebula***

- **PART USED:** Fruit ^[24]
- **DOSE:** 5-7g ^[23]
- **PHARMACOLOGICAL ACTIONS:**
 - Purgative of all three humors ^[9] Siccative ^[8]
 - Stomachic ^[9] Eye tonic ^[23]
 - Cardio tonic ^[24] Diuretic ^[8]
 - Brain tonic ^[9] Astringent ^[25]
 - Laxative ^[26] Memory enhancer ^[9]
- **THERAPEUTIC USES**
 - Melancholia ^[9] Epilepsy ^[8]
 - Piles ^[9] Headache ^[8]
 - Dementia ^[8] Facial palsy ^[9]
 - Chronic diarrhoea ^[26] Dysentery ^[25]
 - Flatulence ^[25] Hiccup ^[26]

➤ PHARMACOLOGICAL STUDIES

- Antioxidant ^[27] Antidepressant ^[28]
- Anxiolytic ^[29] Chemomodulatory ^[30]
- Immunomodulatory ^[31] Cardioprotective ^[32]
- Neuroprotective ^[33] Hepatoprotective ^[34]
- Antidiabetic activity ^[35]

Post-e-Balela***Terminalia bellerica***

- **PART USED:** Fruit ^[24]

- **DOSE:** 9-10g ^[24]

➤ PHARMACOLOGICAL ACTIONS

- Stomachic ^[23] Astringent ^[1]
- Expectorant ^[2] Eyetonic ^[2]
- Purgative ^[3] Antipyretic ^[1]
- Tonic ^[4] Attenuant ^[4]
- Aperient ^[4] Laxative ^[5]
- Brain tonic ^[23] Absorbent ^[24]

➤ THERAPEUTIC USES:

- Disease of GIT ^[23] Bronchitis ^[25]
- Diarrhoea ^[23,25] Eye weakness ^[23]
- Brain weakness ^[36] Cough ^[23]
- Dyspepsia ^[25] Biliousness ^[36]
- URT infections ^[25] Allergic eruptions ^[25]
- Piles ^[36] Leprosy ^[36]
- Hoarseness ^[26] Dropsy ^[26]
- Ophthalmia ^[37]

➤ PHARMACOLOGICAL STUDIES

- Antioxidant ^[38] Antihypertensive ^[39]
- Antimicrobial ^[40] Anti-diarrhoeal ^[41]
- Wound healing ^[42] Anti HIV-1 ^[43]
- Antimalarial ^[43] Antifungal ^[43]
- Antidepressant ^[44] Anti-anxiety ^[29]
- Analgesic ^[45] Anti-cancerous ^[46]
- Immunomodulatory ^[47] Hepatoprotective ^[48]
- Cardioprotective ^[49] Anti-thrombotic ^[50]
- Anti-diabetic ^[51] Antiulcer ^[52]
- Antipyretic ^[53] Anti-salmonella ^[54]

Aamla***Emblica officinalis***

- **PART USED:** Fruit ^[24]

- **DOSE:** 3-5g ^[23]

➤ PHARMACOLOGICAL ACTIONS

- Cardiotonic ^[55] Astringent ^[25]
- Brain tonic ^[23] Purifier ^[56]
- Anti-anaemic ^[25] Anabolic ^[25]
- Antiemetic ^[55] Antihaemorrhagic ^[25]
- Anti-diarrhoeal ^[25] Diuretic ^[56]
- Antidiabetic ^[25] Carminative ^[26]
- Antioxidant ^[25] Antibilious ^[25]
- Anti-asthmatic ^[25] Stomachic ^{[8], [26]}
- Refrigerant ^[37] Laxative ^[37]
- Memory enhancer ^[8] Aphrodisiac ^[8]
- Purgative of black bile and phlegm ^[8] Appetizer ^[8]

- Hair tonic^[9]
- Tonic for vital organs^[9]
- Liver tonic^[9]

- Eye tonic^[9]
- Hair blackening^[9]
- Aperient^[57]

- Anticonvulsant^[73]
- Immunomodulatory^[31]
- Neuroprotective^[33]
- Antiaging^[75]
- Antipyretic^[77]
- Anti arthritic^[79]
- Antidepressant^[28]
- Cardioprotective^[32]
- Hepatoprotective^[74]
- Antifungal^[76]
- Anti-inflammatory^[78]
- Anti caries activity^[80]

➤ THERAPEUTIC USES

- Brain weakness^[23]
- Headache^[23]
- Hyperacidity^[23]
- Ophthalmia^[24]
- Dyspepsia^[25]
- Mouth ulcers^[57]
- Jaundice^[25]
- Bronchitis^[25]
- Bilioussness^[57]
- Anorexia^[26]
- Haemorrhage^[37]
- Dementia^[9]
- Gastric ulcers^[25]
- Diarrhoea^{[23],[24]}
- Conjunctivitis^[24]
- Dysentery^[57]
- Indigestion^[57]
- Diabetes^[25]
- Vomiting^[25]
- Palpitation^[9]
- Piles^[8]
- Cardiac weakness^[9]

➤ PHARMACOLOGICAL STUDIES

- Antibacterial^[58]
- Antioxidant^[60]
- Hypolipidemic^[62]
- Anti-tumor^[64]
- Antimicrobial^[66]
- Insulin sensitizing activity^[68]
- Chondroprotective^[59]
- Gastroprotective^[61]
- Hepatoprotective^[63]
- Anti-inflammatory^[65]
- Analgesic^[67]

Halela Siyah

Terminalia chebula

➤ **PART USED:** Fruit^[24]

➤ **DOSE:** 5-10g^[23]

➤ PHARMACOLOGICAL ACTIONS:

- Diuretic^[24]
- Brain tonic^[23]
- Analgesic^[23]
- Astringent^[9]
- Intestinal tonic^[9]
- Alterative^[26]
- Tonic^[26]
- Blood purifier^[26]
- Cardio-tonic^[24]
- Eye tonic^[23]
- Purgative^[25]
- Stomachic^[26]
- Antibilious^[25]
- Laxative^[26]
- Aperient^[37]

➤ THERAPEUTIC USES:

- Amenorrhoea^[24]
- Eye weakness^[23]
- Weakness of GIT^[23]
- Constipation^[25]
- Vomiting^[25]
- Splenomegaly^[26]
- Bronchial asthma^[25]
- Urinary diseases^[26]
- Rheumatism^[26]
- Hiccup^[26]
- Dementia^[9]
- Facial paralysis^[9]
- Cardiac weakness^[24]
- Brain weakness^[23]
- Flatulence^[25]
- Dysentery^[25]
- Hepatomegaly^[26]
- Cough^[25]
- Fever^[26]
- Piles^[9]
- Worms^[26]
- Dyspepsia^[37]
- Melancholia^[9]

➤ PHARMACOLOGICAL STUDIES

- Antioxidant^[27]
- Antibacterial^[69]
- Anti HSV-2^[71]
- Anti-diabetic^[35]
- Antiulcerogenic^[70]
- Antimicrobial^[72]

Turbud

Operculina turpethum

➤ **PART USED:** Root^[24]

➤ **DOSE:** 3-5g^[23]

➤ PHARMACOLOGICAL ACTIONS

- Purgative of phlegm and yellow bile^[8]
- Deobstruent^[8]
- Cathartic for brain, stomach & uterus^[8]
- Anthelminthic^[36]
- Purgative^[36]
- Expectorant^[36]
- Antipyretic^[36]
- Laxative^[36]

➤ THERAPEUTIC USES

- Paralysis^[8]
- Sciatica^[8]
- Epilepsy^[8]
- Bronchitis^[81]
- Ascites^[81]
- Ulcers^[81]
- Haemorrhoids^[81]
- Constipation^[81]
- Anemia^[82]
- Skin disorders^[82]
- Gout^[82]
- Conjunctivitis^[83]
- Chronic cough^[8]
- Melancholia^[8]
- Scizophrenia^[8]
- Helminthiasis^[81]
- Leucoderma^[81]
- Erysipelas^[81]
- Ophthalmia^[81]
- Arthralgia^[81]
- Hepatitis^[82]
- Rheumatism^[82]
- Corneal opacity^[83]

➤ PHARMACOLOGICAL STUDIES:

- Antisecretory^[84]
- Anti-inflammatory^[84]
- Hepatoprotective^[85]
- Anticancerous^[87]
- Cytotoxic activity^[86]
- Ulcer protective^[84]
- Anti diarrhoeal^[84]
- Antibacterial^[86]
- Antioxidant^[87]

Bisfayej

Polypodium vulgare

➤ **PART USED:** Root^[24]

➤ **DOSE:** 5-10g^[7]

➤ PHARMACOLOGICAL ACTIONS

- Purgative of black bile & phlegm^[23]
- Anti-inflammatory^[8]
- Laxative^[88]
- Hypothermic^[88]
- Analgesic^[88]
- Antiepileptic^[7]
- Antipyretic^[88]
- Cardio tonic^[7]
- Diuretic^[88]
- Digestive^[88]

➤ THERAPEUTIC USES

- Leprosy^[7]
- Flatulence^[7]
- Epilepsy^[8, 7]
- Melancholia^[8, 7]
- Colitis^[23]
- Eruptions^[7]

- Joint pain^[8] Asthma^[8]
- Haemorrhoids^[7] Rheumatic disorders^[7]

➤ PHARMACOLOGICAL STUDIES

- Antioxidant^[89] Anti-arthritis^[90]
- Antimicrobial^[89] Anti-inflammatory^[89]

Aftimoon

Cuscuta reflexa

➤ **PART USED:** Whole plant^[23]

➤ **DOSE:** 3-5g^[23]

➤ PHARMACOLOGICAL ACTIONS

- Aphrodisiac^[36] Tonic^[91]
- Expectorant^[36] Carminative^[36]
- Anthelmintic^[36] Purgative^[91]
- Diaphoretic^[91] Diuretic^[36, 23]
- Anti-inflammatory^[24] Sedative^[36]
- Emmenagogue^[25] Anodyne^[36]

➤ THERAPEUTIC USES

- Jaundice^[36] Muscles & joint pain^[36]
- Paralysis^[7] Diseases of spleen^[7]
- Melancholia^[24] Schizophrenia^[24]
- Intestinal worms^[24] Flatulence^[91]
- Epilepsy^[92] Brain disorders^[7]
- Facial paralysis^[7] Numbness^[7]
- Palpitation^[7]

➤ PHARMACOLOGICAL STUDIES:

- Anxiolytic^[92] Anti-inflammatory^[93]
- Anticonvulsant^[94] Cytotoxic^[93]
- Antibacterial^[95] Anti-fertility activity^[94]

Ustukhuddus

Lavandula stoechas

➤ **PART USED:** Flowers^[24]

➤ **DOSE:** 7-10g^[92]

➤ PHARMACOLOGICAL ACTIONS:

- Resolvent^[8] Antiphlegmatic^[7]
- Tonic^[7, 96] Brain purifier^[7]
- Nervine tonic^[24, 96] Deobstruent^[8, 96]
- Brain tonic^[7] Cardio tonic^[8]
- Hepatoprotective^[7, 8] Anticonvulsant^[25]
- Antidote^[8] Antiseptic^[97, 25]
- Antispasmodic^[7] Anti-depressive^[25]
- Sedative^[25] Antibacterial^[25]
- Purgative of phlegm, yellow bile and black bile^[7]

➤ THERAPEUTIC USES

- Hemiplegia^[24] Facial paralysis^[24]
- Tremor^[8] Sinusitis^[25]
- Chronic catarrh^[7] Melancholia^[96]
- Neurasthenia^[24] Epilepsy^[8]
- Rheumatic & neuralgic pains^[25] Liver disorders^[8]
- Dementia^[7] Piles^[8]
- Ascites^[8] Scizophrenia^[7]
- Depression^[25] Insomnia^[25]

➤ PHARMACOLOGICAL STUDIES

- Antimicrobial^[97] Antibacterial^[98]
- Antifungal^[99] Anti-inflammatory^[100]
- Antioxidant^[101] Cytotoxic^[102]
- Anticonvulsant^[103] Spasmodic^[104]
- Sedative^[105] Antispasmodic^[105]
- Hypoglycaemic activity^[106]

CONCLUSION

With the above discussion the inference may be drawn that Majoon Najah is one of the best unani formulations for neurological disorders. It has proven to be beneficial to treat various neurological disorders such as depression, epilepsy etc. However more scientific studies and clinical trials are needed on this compound formulation to ensure its scientific validation for clinical use in patients. According to Wild *et al.* the prevalence of diabetes is predicted to double globally from 171 million in 2000 to 366 million in 2030 with a maximum increase in India. Evidence from prospective epidemiological studies has identified type 2 diabetes as an independent risk factor for multiple hyperglycemia-induced complications virtually in all organs, including neurodegenerative diseases such as diabetic neuropathy, stroke, dementia, and Alzheimer's disease.^[107] Epilepsy or seizures which is the second common neurological disorder are often observed in patients with diabetes mellitus (DM), and an emerging association between the two diseases is more than coincidental based on recent research. Approximately 25% of patients with DM experience different types of seizures. Furthermore, diabetic patients who experienced episodes of DKA also have seizures more frequently.^[108]

Though; Majoon Najah can be effectively used as a potent Unani formulation for neurological disorders like epilepsy, depression etc if it is made sugar free. So in view of current emerging disease scenario of diabetes and neurological disorders it is the demand of present era to prepare its compatible sugar free dosage form.

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