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## The drugs used in the management of duf'al dimagh (cerebro asthenia) in unani system of medicine

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### Abstract

Duf'al Dimagh Cerebro Asthenia is a well described and well treated condition of brain which leads to many other disease in human body such as hepatobiliary disturbances. Almost all ancient Greco Arab Physicians of repute have discussed the causes, sign and symptoms suggested a number of methods of treatment including oral and external and physical therapies to regain the health of human brain. The modern system of medicine describe the disease as cerebro asthenia it is a syndrome that includes a variety of emotional deviation disturbance in behavior reduced mental work capacity and learning ability. The person suffering from the syndrome need not only appropriate treatment, but also a particular way of life respect family and friends. There is a lot of scope for alternative system of treatment in this way the Unani system is one of them. Unani system of medicine has abundant storage of single as well as compound drugs to minimize the complications and management of the disease or syndrome. In this review article some common single and compound drugs are mentioned for the benefits of the mankind.

**Keywords:** Unani, Asthenia, Herbal

### Introduction

Asthenia is the medical term for loss of strength, weakness or lack of energy, which may affect the entire body or may be localized to a particular area of body. Cerebro-asthenia is one of the most common diseases seen in the clinical practice throughout the world. According to Unani system of medicine, the cerebro-asthenia is defined as the weakness of brain. In this condition, the blood supply is decreased either as a whole or in any part of the brain and therefore brain does not get sufficient nutrition. This causes disturbance in the different faculties of brain due to the impaired temperament of brain. Some of the common symptoms of this disease are headache, giddiness, loss of memory, constipation with weakness, insomnia, hypersomnia, impaired hearing, impaired vision and speech impairment. (Geelani, 1996) [17]

The clinical features of Du'f al-Dimagh (Cerebro asthenia) are mild headache, anxiety, and impaired thoughts (Kabiruddin 2009) [23]

The Unani system of medicine have abundant storage of single as well as compound drugs to minimize the symptoms and complication related to cerebro asthenia. In Unani classical literature, a number of drugs have been reported to have beneficial effects on neurological and cranial disorder like epilepsy, giddiness, headache, loss of memory, idiopathic intracranial hypertension and neuralgia etc. These Unani drugs have been prescribed by the Unani physicians as single drug and its compound formulation in the management of cerebro asthenia.

The modern medicine produces more or less adverse effects in the human body therefore; natural, herbal or traditional medicines are now being seen by the people with an eye of great interest. Unani medicine is one of them that not only provides the drugs information in abundance but also claims that the drugs have least or no adverse effect. The present study was conducted with an aim to index the single and compound Unani drugs, which have beneficial effects on the disease like cerebro asthenia. The objective of this study is to provide a comprehensive review of some of Unani drugs that can reduce the risk of developing cerebro asthenia and its subsequent fatal effects.

Some single drugs as well as compound formulation prescribed by Unnai physicians in the management of 'duf al dimagh' (cerebro-asthenia) disease here brief information of the drugs are given.

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### 1. Amla (*Emblica officinalis*)

It is an important dietary source of vitamin C, amino acids, and minerals. In traditional medicine, it is used for various conditions like diarrhoea, jaundice, inflammation, cerebral insufficiency and mental disorders (Anil Kumar *et al.*, 2007) [2]. (Anonymous 2007) [5, 7, 8, 10]. The fruit extract was reported to possess hepato protective, chemo preventive, anti atherogenic, ant proliferative, cardio protective, hypolipidaemic, anti-inflammatory, anti diabetic, analgesic and antipyretic and adaptogenic activities (Khan, 2009 Ali 2004) [23, 36]. In the recent study done by Kumar *et al.* in 2012, the study reveals that Amla has the unique natural properties to improve immunity and protects heart, brain and other vital organs of body. (Kumar *et al.* 2012) [28]

Temperament- cold and dry

Usages: In India, Amla is popularly used in the form of murabba, juice, chutney and powdered Alma. It is apply locally in form of oil. It is very rich in vitamin C.

### 2. Badam shirin / Almond

(*Prunus Dulcis*) Almond is known as Badam shirin in Unani system of medicine. It is widely taken as dry fruit by the people. The intake of soaked 5 almonds a day serve the purpose of brain tonic and boost the functionality of the central Nervous System to a great extent. (Anonymous 2007) [5, 7, 8, 10] It is a well known dry fruit particularly for zuf al dimagh. This is the conservation of vital organ. Almonds contain a lot of healthy nutrients that not only benefits over all health but is also known to boost special brain functions. (Luis 2017) [29]

Temperament: Hot and Moist

Usages: Soak 5 almonds over night and peel off the upper layer of skin and took also with whole grain, enriched with protein and calcium. The oil of almond orally given with milk is also very beneficial in the management of the disease. It is locally applied over the head and body (Ali 2004 p 62) [36].

### 3. Uutukhudus / Stoecadulasteochass (*Lavendula stoechas*)

This drug is evergreen shrub and have not any dietary nutrition. Ustukhuddus provides strength to brain, and prevents nervine disorders. A study of Mohd Aftab Siddiqui about lavendulasteochas, described that the plant the drug is use in headache, for cleansing wounds, provides strength to head, brain, liver, spleen, stomach and intestines, expel the crudities from the brain and clarify the intellect. (Siddiqui *et al.* 2016, Ali 2004) [35]

Temperament: Hot and Dry

Usages: The decoction of three gram of drug is very useful for symptoms and all condition of Duf al dimagh. (Ali 2004) [36]

### 4. Brahmi, Penywo (*Hydrocotyle Asiatica* Linn)

The Brahmi is a medicinal herb, which has properties to boost brain function, memory and learning. The active compounds in Brahmi, known as bacosides have their beneficial effects on the brain and human health. The active compounds in Brahmi positively influence the brain cells that prompt the regeneration of brain tissue.

It is a well proven herb of many medicinal properties. (Anonymous 2007) [5, 7, 8, 10] All the parts of the plant can be used to promote memory and intellect and also used in the treatment of neurological disorders and also as a rejuvenator.

There are numerous clinical trials and studies have been performed by various researchers to check the no tropic effects of Bacopamonnieri. (Patel *et al.*, 2018) [33]

Temperament Hot and Dry

Usages: Five grams in the form of powder and ten grams in the form of decoction. For local application, its oil is also used.

### 5. Banafsha / VOILET Herb (*Violaodorata* Linn.):

This herb is found in high altitude regions of Kashmir and western Himalayan regions in India. Roghan Gul Banafsha. It relieves in dryness of head. The intake of decoction Gul-e-Banafsha helps in reducing the bilious headache. (Ali 2004, p 82) [36] A study in done in Tehran by Zohar Feyzabadi, the study reveals hypnotic effects of Banafsha, on patients with chronic insomnia. Violaodorata is herbal drugs that are known for its hypnotic and sedative effects in headache and insomnia in ITM. Early persian practitioners believed that insomnia occurs due to brain dystemperament. According to their clinical approach, treatment was correct in the brain dystemperament by herbal medicaments which having wet temperament. Violaodorata wet temperament was considered useful in the management of insomnia. (Feyzabadi *et al.* 2014) [38]

Temperament - Hot and Moist

Usages – One part of plant is added to four parts of water to make hot infusion. This is administered in lukewarm condition to reduce bilious headache. Fine paste of well washed Banafsha roots is applied on the forehead to reduce the headache. (Ali 2004) [36]

### 6. Fandaq / Hazelnut (*Corylus Avellaua* Linn)

Hazelnuts are rich in Vitamin B 6, which is required for the creation of myelin, the sheath of the drug increases the speed and efficiency of electrical impulses, enabling the nervous system to operate properly. Hazelnuts contain compounds that can battle heart disease and diabetes, boost brain function, and help to lose weight. Hazel should be considered as brain-boosting powerhouse. They are full of elements that can improve brain and cognitive function and help prevent degenerative diseases later in life. Because of high levels of vitamin E, manganese, thiamine, folate and fatty acids, a diet supplemented with hazelnuts can help keep your brain sharp and working at its best, making hazelnuts excellent brain foods.

Temperament- Hot and Moist

Usages: The intake of ten grams of hazel nuts with sugar in the morning is useful for all related symptoms of duf'al Dimagh. This drug has been described in Kitabul-Mukhtarfil Tibb and Al Qanoon fil Tibb. According to Hippocrates, the father of medicine, the Hazel nut increases the brain power. (Ali 2004) [36]

### 7. Ood / Eagle wood (*Aquillaria Agallocha*)

The ingredients of the Eagle wood (Eagle wood) strengthens the chief organs of the body and is also used in anxiety, depression and calming of minds (Ali 2004, p 207) [36] The plant is an important medicinal plant is one of the most widely growing species of the family. It is a precious plant on the earth because of its spacious medicinal properties to treat several diseases like inflammation, arthritis vomiting cardiac disorders, cough, asthma, leprosy, anorexia, headache and

gout. The plant has been possess several pharmacological activities such as anti nociceptive, antimicrobial, laxative, anti-oxidant, sedative and CNS activities. (Alam J *et al.*, 2015) [20]

Temperament- Hot and Dry

Usages – 500 mg to 2 grams of dried wood powder with honey is beneficial for all condition of the disease. (Ali 2004) [36]

#### 8. Ood- Saleeb Paonyroot (*Paeonyofficianilis*)

The beneficial effect of this herbal medicine is on epilepsy, paralysis, facial paralysis and meningitis. It has been cultivated in Europe for years. The root has been use medicinally for over 2,000 years mainly in the treatment of epilepsy, convulsion and spasmodic nervous affections. The root of the plant are of great medicinal significance in the unani system and homeopathy. The root contains asparagin, benzoic acid, flavonoids, paeoniflorin, paeonin, paeonol, protoanemonin, tannic acid triterpenoids, and volatile oil. (Ahmad *et al.*, 2012) [11]

Usages - Three grams powder of plant root with or without honey. (Ali 2004, p 207) [36]

#### 9. Arq-e-Keora / Screwpine (*Pandanustectorius*)

Temperament - Hot and Moist

Usages: Arq and Sharbat of the herb give strength and energy to the brain. (Ali 2004) [36] (Anonymous 2007) [5, 7, 8, 10] A present study carried by P R Bhatt in 2015 in this it is described that the leave of the plant can be used in scabies, leucoderma, cardiac diseases and brain diseases. The study was prime attempt to explore neuro behavioral action p. tectorius by using basic laboratory models. (Bhatt *et al.* 2015) [15]

#### 10. Gaozaban (*Onosma bracteatum Wall*)

Leaf and flowers of Gaozaban plant are used to strengthen the brain and improving its capabilities to fight with the stress. It calms the mind, reduces anxiety and increases alertness and passion for the work (Ali 2004) [36] *O. bracteatum* (Gaozaban) has been advocated in the use of variety of ailments. (Anonymous 2008) [9] Stress is very common health problem which is associate with the disturbances of the body homeostasis or with the disturbance of the body physiological like psychological (behavioral changes), immunological and hormonal imbalances. It causes the pathogenesis of certain chronic diseases like Alzheimer's disease, Parkinson's disease, and hypertension, weakness of the immune system of the human body, asthma diabetes, heart ailments and even cancer. (Badrudin *et al.* 2012) [14]

Temperament- Balanced

Usages: The 6 gram leaf as well as flower of the herb is used in the management of duf 'al dimagh.

#### 11. HING / *Asafoetida* (*Ferula foetida Regal*)

The dried latex exuded from of *Asafoetida* plant comes out from the roots, which solidifies and converts into *Asafoetida* resin (HING). This is a well known spice that is used for variety of purposes. Hing enhances the nervous system and reduces the symptoms of conversion disorder including impaired coordination or imbalance and hysteria. It is used in modern herbalism in the treatment of hysteria, some nervous condition. The resin is antispasmodic, carminative expectorant, laxative, and sedative. (Mahendra *et al.* 2012,

Anonymous, 2007) [5, 7, 8, 10, 34]

Temperament - Hot and Moist

Usages: The gum or granule of 500 mg is used with water for the treatment (Ali 2004 p) [36]

#### 12. Haleela / *Chebuli cmyrobalan* (*Terminalia Chebula*)

The medicinal effect of herb is strongest, when the fruit is ripe. This dry ripen fruit of herb is used as memory enhancer and is beneficial in loss of memory, headache and disease associated with brain. (Anonymous, 2007) [5, 7, 8, 10]

Usages: Three to five grams powder of the dry fruit are used. (Ali 2004) [36] The fruits of myrobalan contains antioxidant agents, including quercetin and vitamin C, neuro degeneration. It can decrease the risk of neurodegenerative disorders such dementia, Parkinson's disease and etc. (Jokar *et al.* 2016) [12]

#### 13. *Nagarmotha* / *Sweet Cyperus* (*Cyperuslongus*)

This is the root of fragrant wild mottle and used for the weakness of brain in ancient times. (Anonymous 2008) [9]

Usages: Decoction of five gram of the drugs is used; this is also used in the form of powder. (Ali 2004) [36]

#### 14. *Ashwagandha*, *Withania* (*Withania Somnifera Dun*)

This is known as Indian ginseng. The herb protects the brain from the oxidative stress that leads to neuro degeneration. Relaxation, a benefit derived from the herb's stress-fighting effects, also improves long-term visual memory. (Anonymous, 2007 Ali 2004) [5, 7, 8, 10, 36] (Ref. Narendra Singh, Mohit Bhalla and Marilena Gilca. An Overview on *Ashwagandha*: A Rasayana (Rejuvenator) of Ayurveda). African Journal of Traditional, Complementary, and Alternative Medicines. 2011; 8(5 Supple): 208-213). *Ashwagandh* enhances the memories and treat the Alzheimer disease. It provides strength to nervous system. *Ashwagandha* having other multipurpose medicinal uses which are supported by different preclinical and clinical trials includes for anti diabetic- immunomodulatory, hemopoietic neurological inflammatory disorders and Parkinson's disease, also useful as sedative. Many pharmacological studies have been carried out to describe multiple biological properties of *W. Somnifera* and outcomes obtained from these studies indicate that it is also useful to treat bronchitis, asthma, ulcer, cancer, emaciation, insomnia and dementia (Kumar *et al.* 2015) The depressant effect of *Withania somnifera* imipramine and their combination was studied or its major active principles, have shown an antioxidant, adoptogen, anxiolytic, antidepressant, memory enhancing, anti-inflammatory, anti-ulcerogenic, properties. (Janathi *et al.* 2012) [19]

Temperament: Hot and Dry

Usages: The roots of the plant are crushed to make fine powder. One gram powder of roots with milk may be taken as described in Unani literatures. (Ali 2004) [36]

#### 15. *Turbud*/ *Turpeth* (*OperculinaTurpethum*)

*Turbud* is a potent medicinal plant used in Unani system of medicine for evacuation of morbid humours from the brain. It is used in treatment of disease associated with nervine and brain. There are two types of *Turbud* i e white and black; white *Turbud* is used for medicinal purposes; it exerts *Mus'hil* (Purgative), *Mulaiyyan* (Laxative) and *Da'af-e-Amraz-e-Balgham-wa-Sauda* (remove morbid matters of phlegmatic

and biliary diseases): it is also use in neurological disorders. (Anonymous 2008 p106) <sup>[9]</sup>

Temperament - Hot and Dry

Usages: One or two grams powder of barks and roots of the plant may be used (Ali 2004) <sup>[36]</sup> T. Ahmad, *et al.* journal of Pharmacognosy and Phytochemistry, 2017

### 16. Satavar (*Asparagus Racemosus*)

The herb is a body and brain rejuvenator and good for intellect, it helps to undo the everyday strain and induces sound sleep. (Anonymous, 1965, Anonymous 2005) The beneficial effect of the drug has been observed on rodents to enhance their memory and protect them against the amnesia (Ojha *et al.*, 2010) <sup>[32]</sup>

Temperament- Cold and Moist

Usages- Three to five grams powder of roots either with milk or mixed with equal amount of honey, may be taken. (Ali 2004) <sup>[36]</sup>

### 17. Sumbul-ut-teeb/ Jatamansi (*Valeriana Officinalis* Linn.)

The roots of the herb supposed to possess stimulant and antispasmodic properties. It is used in the treatment of epilepsy, hysteria, convulsive ailments, palpitations of the heart and diseases of the head etc. (Dweck, 1996). It helps to tone up the brain and stabilizes mental abilities. This drug has specific action on the nervous system and aids in curing a number of mental diseases like hysteria, depression, insomnia, epilepsy and loss of memory. (Anonymous 2007) <sup>[5, 7, 8, 10]</sup> Valeriana is a well-known Indian traditional medicinal herb with sleepy remedy. It has been used over the years to treat in hysteria, epilepsy and nervous anxiety for nervine and sedative action. The plant has been used medicinally for a minimum of 2000 years. It is used in the treatment of brain disorder and also used for the treatment of varied nervous disorders, anti spasmodic, anti helminthic, diuretic, diaphoretic, and emmenagogue, and hysteria. (Nandhini S *et al.* 2018) <sup>[30]</sup>

Temperament- Hot and Dry

Usages-roots of the herb in the form of powder is used (Ali 2004) <sup>[36]</sup>

### 18. Behman Surkh/ Garden sage, Red Sage (*Salvia Haematodes* Linn.)

Root of the plant, which contains high concentration of bioflavonoid, is used as a cerebral nervine tonic by the practitioners of traditional medicine in India (Avicena, 1048.). It is also an ingredient of Unani formulations such as Khamira Gaozaban Sada and several others indicated as nervine and brain tonics. (Kabiruddin 2003) Brain acetylcholine (ACh) deficiency is principal pathogenic factor in Alzheimer's disease (AD). AD is non-curable, because, once neuron is degenerated it does not generally regenerate again. This herb is used to protect ACh to remove the symptoms of Alzheimer disease. British researchers have confirmed that the herb inhibits the enzyme that breaks down acetylcholine, thus preserving Brain acetylcholine (ACh) deficiency to prevent from Alzheimer's disease. (Ali 2004, Khan, 2010) <sup>[36]</sup>

Temperament: Hot and Dry

Usages: 5 grams in powder form is advised in all the ailments.

### 19. Chobchini / China root (*Smilax China* Linn.)

This drug is used to prevent mental disorder like epilepsy, insomnia, and schizophrenia and is supposed to beneficial in

treatment of disease associated with nervous system. (Anonymous 2008) <sup>[9]</sup> It gives calmness of brain and evacuate the balghmi madda of brain.

Temperament: light and dry murakkabulqawa Usages - 10 grams of china roots is added with 50 ml of water. Macerated, filtered, this infusion is consumed early in the morning or in the late evening. (Ali 2004) <sup>[36]</sup>

### 20. Jausheer / Galbanum (*Ferula Galbaniflua* Boiss)

Temperament - Hot and Dry Part used. Natural oleoresin or gum or resin.

Usages- Calms to nerve and reduces stress, anti seizer agent, Memory enhancement. One gram of powder and oil is used of the treat. Used in the weakness of nervous system (Ali 2004) <sup>[36]</sup>

### Compound Unani Formulation

1. Itrifal-e- Ustukhuddus
2. Itrifal-e Kabir
3. Itrifal-e- Zamani
4. Khamira Gowzaban Ambri
5. Khamira Gowzaban Ambri Jadwar Ood Saleeb Wala Khamira Badam
6. Khamira Gowzaban Sada
7. Khamira Gowzaban Ambri Jawahar Wala
8. Habb-e-Ayarij
9. Ikseer -e- Shifa
10. Kushta Marjan Jawahar
11. Khusta Nuqra Murakkab
12. Qurs -e- Nuqra Murakkab
13. Laooq -e- Badam
14. Murabba Haleela Kabuli
15. Murabba Amla
16. Majoon Brahmi
17. Sharbat -e- Kewra
18. Roghan Kaddu -e- Shireen
19. Roghan Amla
20. Roghan Kahu
21. Roghan Long
22. Roghan Badam
23. Roghan -e- Chameeli
24. Roghan -e- Laboob -e- Sabaa (Hamdani 2005, Khan 2002, Geelani 1996) <sup>[22, 17]</sup>

### Conclusion

Cerebro Asthenia is weakness of brain due to decreased blood supply either as a whole or in any part of the brain. Because of known side effects of the conventional drugs in the treatment of the disease, the Unani system of medicine can be good alternative to treat the Cerebro Asthenia because the Unani drugs have either no or the least side effects on the human body. It is need of modern era to propagate the drugs. The article focuses on the management of cerebro asthenia by using herbs and Unani formulation because it is devoid of any side effect on the human body.

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