



Concept of Amnesia (Nisyan) and its Treatment in Unani System of Medicine :(A Review)

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Abstract

Unani system of medicine (USM) is one of the oldest systems of medicine in the world. It is still popular and practiced in Indian sub-continent and other parts of the world and literature of Unani medicine is quite rich in discussing the patho-physiological basis of memory disorders like Amnesia and Alzheimer's diseases (AD); it argues that the power of memory (*Quwat Hafiza*), retention and recall are governed by a complex mechanism involving various faculties. It also suggests some promising drugs that can be useful in the management of memory disorders by combating the exact cause that leads to specific type of memory disorder. The objective of this study is to recollect information About concepts of amnesia (*Nisyan*) and treatment form classical literature of USM, books, research papers available in CRIUM Lucknow library and different online web site.

Key words : Unani System of Medicine (USM), Amnesia (*Nisyan*), Alzheimer's diseases (AD)

Introduction

According to the Unani System of Medicine (USM), amnesia (*Nisyan*) is caused by dysfunction of three internal faculties, faculty of imagination (*quwate takhayyul*), faculty of thinking (*quwate fikr* or *mufakkira*) and memory and recall (*quwate zikr* or *mutazakkira and hafiza*) and the causes of disease have been divided in to three factors viz. in altered temperament (*Sue Mizaj*), altered structure (*Sue Tarkeeb*) and discontinuity in tissues (*Tafarruqe Ittesal*), among which *Sue Mizaj* is most important because brain get influenced easily by cold temperament (*barudat mizaj*) and moist temperament (*ratubat mizaj*) as a result of which the internal mental faculty of brain become derange which leads to dysfunction of all the three faculties. If the disease is limited to a specific region of the brain which possess a particular faculty, defect may develop within the same

faculty, e.g. if there is a disease in anterior part (*Muqaddam Dimagh*) of the brain then *quwate takhayyul* becomes defective, if mid brain (*Ausat Dimagh*) is affected then it has to be counted as defect in thinking (*quwate fikr* or *Quwate mufakkira*) and termed as abnormality in thinking (*fasad fiqr*) Similarly, *quwate zikr* or *mutazakkira and hafiza* becomes defective (*fasad zikr*) referred as disease in posterior brain (*Moakhhkar Dimagh*).¹ and many physicians have described that altered cold temperament (*sue mizaj barid*) accompanied with phlegm (*Balgham*) in the anterior lobe leads to loss of short term memory but their long term memory is retained. This is called first type of amnesia. Second type of memory loss is found in mid brain which is centre of *quwate fikr*. Here moist morbid matter (*ratoobat ghaliza*) and *barudat* causes dysfunction of this faculty. In this condition patient forgets what he was thinking but *quwate takhayyul* remains intact and there is no harm in previous memory. The third type of amnesia appeared when morbid phlegmatic matter (*ghaliz balghami madda*) and *barudat* hampers the faculty of memory and recollection, this leads to loss of past memory and patient will be disabled to retain or conceptualize any further information.²

When these faculties get affected, it can cause three types of deficits in mental faculty viz. cessation of faculty (*Butlaan*) deficiency in faculty (*Nuqsaan*) and improper or altered functioning of faculty (*Tashweesh*).¹ The cessation of memory (*halaqate zikr*) is of two types; first type is caused by cold and moist temperament (*barudat and ratubat*) on posterior part of brain and second type is cold and dry temperament (*barudat and yabusat*) that cease the function of memory. In this condition patient is unable to recall any kind of memory because of complete loss of power of memory due to temperamental disturbance. Muhammad Tabari stated that the nature of moisture is cold and precursor of obstruction and suppresses the innate heat and vital faculty because the *mizaj* of *ratubat* is against *afaal nafsaniya*. Which causes obstruction in supply of innate heat to the particular area of brain and this particular area stops working unable to take further information.² Similarly Ibn Sina also described Pathophysiology of memory dysfunction as abnormality to recall memory (*Fasadul Zikr*) is like state of confusion (*Raumat*). But (the lesion) is in the back part of the brain. Because, this *Fasadul Zikr* is a decline in the functions of back part of the brain or loss of its function as whole and its primary cause, is the cold temperament (*barudat*) either alone or with dry temperament (*yabusat*), in this condition the inputs will not be saved or with moist temperament (*rutubat*), it will not be saved for long what has been imprinted.^{4,5} Abu Marwan Ibn Zohr (Avenzoar) define the memory in brain is disturbed by cold temperament (*barid mizaj*) and when it exceed compared to as normal temperament, it can cause complete cessation of memory. The causes can be with matter or without matter (*maddi or ghair maddi*) which leads dysfunction of intellectual faculties (*quwae mudabbira*).²⁴

The principal of treatment (*Usool Ilaj*) of amnesia and dementia is based on cause of diseases. In case of altered temperament, the emphasis of treatment is based on correction of temperament (*Tadil-e-mizaj*) by the use of diet therapy (*Ilaj bil Ghiza*)³, When memory dysfunction is due to *barid* or *ghaliz ratoobat*, then first are given Concoctive (*Mundij*) and then purgatives (*Mushil*) followed by alteratives (*moaddilat*), and other method like enema (*Huqna*) for purgation is applicable (according to strength of the patient), the principal of treatment of

all three faculties is some but difference is in external application only. The drug is applied according to site of faculty e.g. in case of abnormality in thinking (*Fasadul Fikr*), Irrigents (*Natool*) should be done in mid of the brain similarly in abnormality to recall (*fasad zikr*) the site of *natool* should be posterior part of the brain by various single and compound formulations.^{6,2,3,4, 25}

Diet therapy (*Ilaj bil Ghiza*)

Diet must be light food (*Ghiza -e-Latif*) easily digestible food (*Zud Hadam*) like chicken and mutton soup (*Asfidiyaj- Sada shorba*).^{6,7}

Pharmacotherapy

Unani Physicians stated that line of treatment must be follow as per patient condition, nature and severity of disease. The current treatment of dementia like Alzheimer's disease (AD) includes tacrine, donapizil, rivastigmine and galantamine used as AChE inhibitors, it was most targeted for investigation because it has very significant presence in brain and deficit of it among the other factors has been held responsible for senile dementia and other degenerative cognitive disorders including AD.⁸

Single Drugs

Pyaz dashti (*Urginia maritima* (L.) Baker syn. *Drimia maritima* (L.) Stearn syn. *Scilla maritima* L) belonging to the family Liliaceae widely used in USM. It is indicated that its vinegar is use full in case of amnesia because it is able dilute morbid humor (*Ghaleez Akhlat*).⁶ The studies suggest that it has acetylcholinesterase (AChE), butyrylcholinesterase (BChE) inhibitor, Tyrosinase Inhibition, α -Amylase and α -Glucosidase Inhibition activities were recorded.⁹ It contain flavonoids, cardiac glycoside (steroidal compounds with inotropic and chronotropic activities)¹⁰ shows antioxidant, increases insulin secretion, anticonvulsant activity¹¹ and cholinesterase activity.⁹ Its oil reduces dyspareunia and increases sexual satisfaction in menopausal women.¹²
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Vaj Turki (*Acorus calamus* Linn)

It is the root of *Acorus calamus* Linn. belongs to the family Araceae. In USM it is reported that it has memory enhancer, nootropic (*Muqwwie Hafiza*), nervine tonic (*Muqwwie Aasab*) properties and have ability to liquefy the Demulscient to morbid humours (*Mulattife Akhlat Ghaliza*) and it evacuate morbid matter of brain (*Fuzlate Dimagh*) by Resolvent to Phlegmatic swelling (*Muhllile Awarame Balghami*). *Rabban Tabri* reported *Murabba Vaj Turki* (Ghee and Honey preparations) improve memory and can revert fifty year old amnesia.^{13,14,27, 28} In Ayurveda and Siddha, it is known as *medhya* drug, capable of improving memory power and intellect.^{18,19} A preliminary examination the Indian oil different from the commercial varieties of calamus oil in the respect of predominance of asarone (82%). The commercial varieties contained 7% of asarone.²⁰ Neuro pharmacological action of the oil from rhizome showed sedative, tranquilizing action in rat, mice, cats, dog²¹ and memory improving effect in mice.³² Its α -asarone and β -asarone are quite similar in action. But β -

asarone appeared to be more potent in action,²² β -asarone was found to be AChE inhibitor and α -asarone, was shown to improve memory in rats injected with β amyloid by enhances cognition in amnesic mice due to both cholinergic and antioxidant effects.²³

Brahmi (*Bacopa monnieri*)

Very well-known medicine in USM and other Traditional medicine, a perennial creeping plant belonging to the family Scrophulariaceae is majorly found in wet, damp, and marshy areas throughout India.²⁶ In USM *Bramhi* is known for its brain tonic and memory enhancer (*Muqwwi Dimagh* and *Hafiza*) used as dried powder form with cow milk.²⁷ There is also evidence for potential attenuation of dementia, Parkinson's disease, and epilepsy. it acts via anti-oxidant neuroprotection, acetylcholinesterase inhibition and/or choline acetyltransferase activation, β -amyloid reduction, increased cerebral blood flow, and neurotransmitter modulation (acetylcholine, 5-hydroxytryptamine [5-HT], dopamine [DA]).^{29,30}

Majoon Baladur

The chief constituent is *Baladur* (*Semicarpus anacardium*) and other thirteen prepared in honey and sugar. The studies and classical literature of USM suggests that Baladur has nootropic³¹ and memory improving effects (*Muqwwi Hafiza*)^{3, 33}

Table 01: List of other single drugs (*Mufrad Advia*) with their parts/form used and Mode of action.^{27,28,6,44}

S.N	Name of single (<i>Mufrad</i>) Drugs	Parts /Form used	Mode of Action
01	Zanjabeel (<i>Zingiber officinale</i>)	Powder of Rhizome, orally	memory improving effects (<i>Muqwwi Hafiza</i>)
02	Filfil siyah (<i>Piper nigrum</i>)	Seeds Powder form/ Liniment external (<i>Zimad</i>)	Desiccant (<i>Mujafif Ratubat Dimagh</i>)
03	Agar, (<i>Aquillaria agallocha</i>)	Bark Powder form orally	Brain tonic (<i>Muqwwi Dimagh</i>)
04	Chob Chini (<i>Smilax china</i>)	Bark Powder form, orally and locally	Desiccant (<i>Mujafif Ratubat Dimagh</i>), Antioxidant ³⁴
05	Maghze Akhrot (<i>Juglans regia</i>)	Nuts Powder form, orally	Brain tonic (<i>Muqwwi Dimagh</i>) Nootropic by increasing brain 5-HT metabolism. ³⁵
06	Maghze Badam (<i>Prunus amygdalus</i>)	Seed Powder form, orally/oil locally	Brain tonic (<i>Muqwwi Dimagh</i>) increases

			brain Tryptophan (TRP) and 5HT level ³⁶
07	Maghze Chilghoza (<i>Pinus gerardiana</i>)	Nut Powder form, orally	Brain tonic, increase the working and reference memory & brain weight ³⁷
08	Qust Sheerin (<i>Saussurea lappa</i>)	Root Powder form, orally /externally	Orally nerve yonic (<i>Muqwwi Asab</i>) ext. Desiccant (<i>Mujafif</i>), increases TSH, T3,T4 and Antioxidant ³⁸
09	Balchar (<i>Nardostachys jatamansi</i>),	Rhizome powder orally	Brain tonic (<i>Muqwwi Dimagh</i>), Nootropic ³⁹
10	Saad kufi (<i>Cyperus rotundus</i>)	Rhizome powder orally	Brain tonic (<i>Muqwwi Dimagh</i>), repairing effect in Alzheimer's diseases ⁴⁰
11	Qunturyoon(<i>Centaurea scabiosa</i> L)	Flower and leaves, Decoction /enema	Purgative & antioxidant ⁴¹
12	Muqil /Guggul (<i>Commiphora mukul</i>)	Resin, Decoction / enema	Purgative ⁶
13	Hanzal (<i>Citrullus colocynthis</i>)	Fruits, decoction, oral/ enema	Purgative ⁶
14	Jadwar (<i>Delphinium denudatum</i>)	Root powder	Brain tonic ⁴²

Table 02: List of other Compound drugs (*Murakab Advia*)^{18,19,20,6,44,45}

SN	Name of formulation	Doses	Mode of Action
01	<i>Majoon Jadwar</i>	5-7 gm BD	Brain tonic (<i>Muqwwi Dimagh</i>) ⁶ antioxidant and anxiolytic ⁴³
02	<i>Majoon Bolas</i>	5-7 gm BD	Brain tonic (<i>Muqwwi Dimagh</i>) ⁶
03	<i>Safoor Nisyan</i>	1-2 gm BD	Brain tonic (<i>Muqwwi Dimagh</i>) ⁶
04	<i>Majoon Nisyan</i>	5-7 gm BD	Brain tonic (<i>Muqwwi Dimagh</i>) ⁶
05	<i>Majoon Ustukhuddoos</i>	5-7 gm BD	Brain tonic (<i>Muqwwi Dimagh</i>) ⁶ antioxidant and anxiolytic ⁴⁶

06	<i>Habbe Brahmi</i>	1-2 Tab BD	Brain tonic (<i>Muqwwi Dimagh</i>)
07	<i>Ayarij Faiqara</i>	4-6 Tab HS	Purgative
08	<i>Natool (Irrigants)</i> (<i>Joshanda Raus</i>)	Decoction for Natool	External application for Brain tonic (<i>Muqwwi Dimagh</i>)
09	<i>Kamira Gauzuban</i> <i>Ambri</i>	5gm BD	Alteratives (<i>moaddilat</i>) after purgation

Contraindication: patient should keep out cold environment avoid cold drinking water Buqrat (Hypocrite) stated that mode of evacuation of morbid phlegmatic matter (*ghaliz balghami madda*) must be adopted like use of emetics (*Muqi Advia*) and Irrigants (Natool) of cold temperament (*Barid Natool*).

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