Depression and insomnia in greco-arab medicine

Abstract
Depression is a common mental disorder, characterized by sadness, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, feelings of tiredness, and poor concentration. Depression is the leading cause of disability worldwide, and is a major contributor to the overall global burden of disease. Globally, more than 350 million people of all ages suffer from depression especially seen in women. At its most severe, depression can lead to suicide. In Unani system of medicine comes under Amraze Nafsani(psychiatric disorders) where it is called as Melancholia, a disease caused by excess of black bile in body. Sleep disturbance or Insomnia is an important vegetative sign of depression. The condition of Insomnia is called Sehar or Bekhwabi in Greco-Arab medicine. There are six essential factors (Asbabe-Sitta Zarooriyah) which are necessary at its optimum to maintain the healthy life. Fifth one of them is Naum wa Yaqza (sleep and awakening). Imbalance between these two conditions leads to disease state known as Sehar (Insomnia). The basic pathology for Insomnia is considered to be dryness. All those factors that produces dryness in body are responsible for causing Insomnia. These includes Akhtayari Asbab (voluntary causes), Aarzi Asbab (temporary causes) & Marzi Asbab (pathological causes).Management of Insomnia focused on all the regimens that helps in removing the factors causing dryness ie. Tarteeb e Dimagh (moisturing of brain) by Nutul, Saoot, Tila, Zimad, Tadheen, Lakhlakha, Shamoom, Qutoor/Taqteer, Hammam & Riyazat.

Keywords: depression, insomina, sehar, akhtayari asbab, aarzi asbab & marzi asbab, melancholia

Introduction
Depression is different from usual mood fluctuations and short-lived emotional responses to challenges in everyday life. Especially when long-lasting and with moderate or severe intensity, depression may become a serious health condition. It can cause the affected person to suffer greatly and function poorly at work, at school and in the family. Depression is the leading cause of disability worldwide, and is a major contributor to the overall global burden of disease. Globally, more than 350 million people of all ages suffer from depression especially seen in women. 80% people of low and middle income countries suffer from depression.¹ The World Mental Health Survey conducted in 17 countries found that on average about 1 in 20 people reported having an episode of depression in the previous year. At its worst, depression can lead to suicide. Almost 1 million lives are lost yearly due to suicide, which translates to 3000 suicide deaths every day. That’s why it has been chosen as the theme of the year 2017 by WHO so that it can be controlled globally by effective management.¹

Insomnia can be caused by psychiatric conditions such as depression. Psychological struggles can make it hard to sleep, insomnia itself can bring on changes in mood, and shifts in hormones and physiology can lead to both psychiatric issues and insomnia at the same time. Sleep problems may represent a symptom of depression and the risk of severe insomnia is much higher in patients with major depressive disorders. Studies show that insomnia can also trigger or worsen depression. The symptoms of depression and insomnia can be linked, and one can make the other worse.² Depression in Unani system of medicine has explained under Amraze Nafsani(psychiatric disorders) where it is called as Melancholia, a disease caused by excess of black bile in body. The term melancholia literally means “black humour” which is the predominant causative factor. Sleep disturbance or Insomnia is an important vegetative sign of depression.

Insomnia is a sleep disorder characterized by having difficulty falling asleep or staying asleep. In Greco Arab medicine Insomnia is known as Sehar/Bekhwabi - Ibn-e-Hubul Baghdadi explained Sehar as excess of awakening which produces dryness in the body.¹

Insomnia is a term applied collectively to complaints involving chronic inability to obtain adequate sleep:
1. Sleep onset insomnia(difficulty in falling asleep)
2. Frequent nocturnal insomnia(interrupted sleep characterized by frequent awakenings)
3. Early morning insomnia(wakening up early in the morning)OR
4. Taking longer than 30 min to fall asleep or awakening during night more than 30 min of wakefulness (WHO)⁶

Sleep is a naturally recurring state of mind and body, characterized by altered consciousness, relatively inhibited sensory activity, inhibition of nearly all voluntary muscles, and reduced interactions with surroundings. Sleep is divided into two broad types: rapid eye movement (REM sleep) and non-rapid eye movement (non-REM sleep). The American Academy of Sleep Medicine (AASM) divides NREM into three stages: N1, N2, and N3, the last of which is also called delta sleep or slow-wave sleep. The whole period normally proceeds in the order: N1 → N2 → N3 → N2 → REM. REM sleep occurs as a person returns to stage 2 or 1 from a deep sleep. There is a greater amount of deep sleep (stage N3) earlier in the night, while the proportion of REM sleep increases in the two cycles just before natural awakening. Dreams usually come in REM. The NREM-REM cycles vary in length from70-100 minutes initially to 90-120 minutes later in the night. Unable to achieve these stages completely may lead to Insomnia and other sleep disorders.³
Types of Insomnia

1. Primary (Unknown etiology)
2. Secondary (as a symptom or side effect of some other problem)

   e.g. Conditions that cause chronic (ongoing) pain, such as arthritis and headache disorders, Conditions that make it hard to breathe, such as asthma and heart failure, An overactive thyroid, Gastrointestinal disorders, such as heartburn, Stroke, Sleep disorders, such as restless legs syndrome and sleep-related breathing problems, Menopause and hot flashes. In Unani system of medicine, Asbabe Sitta Zarooriyya (six essential factors) has been described. Maintenance of proper equilibrium/balance of these factors is essential for maintaining both physical and mental health. These are:

   1. Hawa’ muheet (Ambient air)
   2. Ma’kul-o-Mashrub (Food and Drinks)
   3. Harkat-o-Sukun Badani (Bodily movements and Repose)
   4. Harkat-o-Sukun Naftani (Psychic movements and Repose)
   5. Naum-o-Yaqza (Sleep and Wakefulness)
   6. Istifragh-o- Ihtibas (Evacuation and Retention)

The fifth one Naum wa Yaqza

Yaqza (awakening/wakefulness) is a condition in which rooh-e-naftani (neural pathway) enables the human body to perform physical activities. During this phase, due to physical activities energy is utilized, as a result of this hararat-e-gharizia (innate heat) and ratubat-baroudat (cold and wet) the body fluid gets exhausted leading to fatigue, lethargy and dryness. Naum (sleep) is a condition in which rooh-e-naftani (neural pathway) enables the human body to perform physical activities.

Causes (Asbab)

A. Akhtayari Asbab (voluntary causes)
   a. Excessive of work
   b. Small amount of diet
   c. Excess of muharrik drinks (tea, coffee, qahwa),
   d. Intake of flatulent producing food stuffs (brinjal, cauliflower etc.) or gastric irritant,
   e. Excess of light in the room or noise pollution.

B. Aarzi Asbab (temporary causes)
   a. Excess of emotions like fear or pessimistic, sadness or happiness
   b. Nightmares
   c. Over thinking or worrying
   d. Indigestion

C. Marzi Asbab (pathological causes)
   a. Su-e-mizaj barid dimaghi (ill dry temperament of brain)
   b. Su-e-mizaj barid yabis dimaghi (ill cold and dry temperament of brain)

   c. Ghalba-e-sauda (excess of black bile)
   d. Su-e-mizaj har yabis (ill hot and dry temperament of brain)
   e. Ghalba-e-safra (excess of bile)
   f. Ghalba-e-balgham-e-shor (excess of acid phlegm in brain)
   g. Ghalba-e-akhlat-e-fasida (excess of bad/morbid humors) in the body
   h. Fasad-e-dam (impurity of blood)
   i. Istifragh qawi (post excessive evacuation)
   j. Shiddat-e-hrararat (Post pyrexia)

D. Sign & Symptoms
   a. Heaviness on eyelids & eyeballs
   b. Heaviness & uneasiness in the head
   c. Salty taste in the mouth and
   d. An intense urge to sleep that could not be meet out.
   e. In case of excessive dryness, the patient’s perception of heat and cold is reduced along with all the sensory perceptions. There is dryness and burning sensation in eyes, nostrils and tongue. 
   f. Insomnia may lead to abnormality in thought process.
   g. Excess of insomnia may lead to convulsive disorders and mental irritative disorders (Hippocrates).

Management of Insomnia

The line of management of Insomnia based on to rule out the cause and its treatment accordingly, following the three basic principles of Unani system of medicine i.e. Ilaj bil ghiza, ilaj bil dawa and ilaj bil tadbeer. Dryness is an important factor in the etiology of the disease which should be addressed first and rest of the management depends on the Maihahit Marzi (pathogenesis) and should be treated accordingly.

I. Ilaj bil ghiza (Dietotherapy)
   i. Dietary items that produces ratooobat and baroodat (cold and wet) in the body for eg. Increase fluid intake, kaddoo (pumpkin), khufra (common purslane), laub-e-asapghol (mucilage of isapgol husk), Sheera Tukhm-e-Kashkhash (poppy seeds), Sheera Tukhm-e-Kahu (garden lettuce), Aab-e-Bed Mushk (goat willow water), Palak (spinach), Soya, Barg-e-Khas (vetiver leaves) etc.

II. Ilaj bil tadbeer (Regimental therapy)
   i. According to Ajmal Khan, Tarteeb e Dimagh (moisturing of brain) by Nutul, Saaoot, Tadheen, and Hamman is very effective in various types of Bekhwabi. Following regimes help in removing heat and dryness from the brain and body and thereby induce sleep-
   ii. Tadheen (Annonation): Applying oil over the part of the body is termed as Tadheen. Anonation of roghan e kaddu, khashkhash, roghan e laboob sabaa, roghan e kahu over the scalp recommended for removing Bekhwabi.
   iii. Hamman: Moatadil hamman is useful in Bekhwabi particularly after digestion. Razi recommends sweet and luke warm water for insomniacs. Murattib hamman is also very effective for removal of dryness of brain.


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iv. Nutool (irrigation): A watery preparation like decoction, infusion, oil or solution, either hot or cold in state is poured from particular height over the affected part of the body to cure disease called Nutool. Nutoolat e Murattiba prepared with banafsha, ncelofer, gul e surkh, tukhm e kahu, kishneez sabz, post (bark), aabe shibbat sabz (anethum sowa ) and tukhm e khasskhash and sheeer are very effective. Above mentioned drugs including tukhm e khatmi and khubazi can also be used in nutool.

v. Su’oot: oily or water preparations of drugs dropped in nose is known as Su’oot. Roghaniyat of gul, kaddu, badam, ncelofer, banafsha either single or in combination is used for inducing sleep.

vi. Tila (liniments): Diluted oily or watery preparation used topically on a particular part of the body is called Tila. Qurs e Musallas with aab e kishneez sabz over forehead, kaahu, yabrooj (belladonna), bazrulbanj (henbane), afyoon (opium) each in equal quantity boiled along with khasskhash and apply as tila on forehead. Tila of Qurs e Anzaroot is highly effective method of Tabreed e Dimagh.

vii. Zimad (paste): It is a semisolid preparation applied externally. Applying paste of ushna (stone flower), leaves of hemp and goat milk over soles or sandal safaid with aab e kishneez sabz or aab e koknar remove excessive heat and induce sleep.

viii. Lakhalkha (inhalation): it is an aromatic base preparation made up of watery or solid drugs kept in a wide mouth container allow inhaling through nose called Lakhalkha.

ix. Lakhalkha of aab e barg kaahu sabz, sheera tukhm e khasskhash and roghane ncelofer is beneficial in Bekhwabi

x. Shamoom: the drug which is sniffed and its volatile constituent’s reaches to nose is called Shamoom. Afyoon, yabrooj, lettuce, barley flour are commonly used in Bekhwabi as Shamoom.

xi. Qutoor/Taqteer: pouring drop by drop watery or oily medicine into nose or ear is called Taqteer. Instill roghane ncelofer into ear or sheera khasskhash prepared in cow’s milk into nose.

xii. Nashooq: in this drug is sniffed into nose. It may be watery preparation or in powdered form. Using oil in which shibbat is boiled, as Nashooq.

xiii. Dalk (massage): Dalk with roghane qinab or kaddu or banafsha or baadam over soles,or roghane ncelofer over legs induces sleep. Massage of head with roghane kaddu, roghane kaahu and roghane khasskhash (each in equal amount) at night induces sleep.

xiv. Riyazat (exercise): it also sometimes helpful in inducing sleep. It should be light not vigorous.

xv. Ilaj bil dawa(Pharmacological management)

xvi. Munzij-e-sauda (concoctive for black bile) drugs like bifaij fistaqi (polypody), baadrnjboya (catswort), mawez munaqqa (seedless dried grapes) aftimoon (dodder), injeer zard (yellow fig) etc., Followed by

xvii. Mushil-e-sauda (melanogogue) like ghariqoon mugharbal (processed larch ageric), barg-e-sana makki (senna leaves), sibr (aloe vera) etc. Along with

xviii. Mufarreh (exhilarants) & muqawwi dimagh (brain tonic) e.g. Mufarreh shaikhur-races, mufarreh azam ,Hareera maghz badam wala, dawaul misk motadil.

Conclusion

The burden of depression is on the rise globally and diseases or conditions arising out of it, itself complicate the management. However efficacious and cost-effective treatments are available to improve the health and the lives of the millions of people around the world. Life style modification mentioned in Greco Arab medicine, is one of the best regimes to be followed to combat with Insomnia. Apart from it, Unani drugs can also be used efficiently for the treatment of Insomnia as the allopathic drugs produces drug dependence and worsen the condition.

Acknowledgments

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Conflicts of interest

Authors declare that there is no conflict of interest.

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5. Sleep.