

NUTOOL THERAPY (IRRIGATION) AND ITS PRACTICAL APPLICATIONS IN UNANI SYSTEM OF MEDICINE

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ABSTRACT

Ilaj bit tadbeer or regimenal therapy is one of the four methods of treatment in Unani system of medicine. The other three being *Illaj bil giza* (Dietotherapy), *Illaj bil dawa* (Pharmacotherapy) and *Illaj bil yad* (surgery). *Illaj bit Tadbeer* includes a number of regimenal interventions such as *Hijamah* (cupping), *Irsal alaq* (leeching), *Hijamah*, *Fasad* (venesection), *Dalak* (massage), *Nutool* (irrigation), *Qay* (Emesis), *Idrar-i-Bawl* (Diuresis), *Tariq* (Diaphoresis), *Munzij* and *Mu'shil* therapy (Concoction and purgation), *Bukhoor* (medicated steam), *kayy* (cauterization), *Huqna* (enema) etc. Among these regimens *Nutool* or irrigation is a classical and an effective method in regimenal therapy which refers to pouring or dripping of drugs on

specific body parts. For this purpose usually water, oil or medicated decoction is poured from a height over specific sites of body in certain diseases. This process is called *Tanteel* (irrigation). Depending upon the nature of liquids used for desired actions in this therapy it has been broadly divided into two types; *Nutool Haar* and *Nutool Barid*. *Nutool* or irrigation is done with a purpose of acceleration of process of *Ikhraj-e-mawad* (evacuation of morbid material) and *Ta'dil-i Mizaj-e-Aza* (normalization of morbid temperament) and to improve the *Quwat-e -Mudafiat* (defense mechanism of body), this results in desired neurological, psychological and pharmacological effects in various diseases. It also enhances the local absorption of medicines thus helps in getting the desired action of medicine locally. *Nutool* is effective in relieving chronic disease, pains and stiffness of various types, as in *Waja- ul mafasil* (arthritis), *Suddaa* (headache), *Surra* (Epilepsy) *Sarsaam* (meningitis), *Shaqiqah*

(migrane) *Sakta* (stroke), *Bekhwabi* (Insomnia), *Dawar* (vertigo), *Mania*, *Malancholia* (Melancholia), *Nisyan* (Amnesia), *Ahtibase bol* (retention of urine), *Warm e suddi* (mastitis) and *Warne raham* (endometritis) etc.

KEYWORDS; *Hijamah, bukhoor, Illaj bit tadbeer, Tanteel, Nutool, Mania.*

INTRODUCTION

Literally *Tadbeer* is an Arabic word meaning “Regimen” (systemic plan) while as *Illaj* means “therapy” or “treatment”. Therefore *Illaj bit tadbeer (IBT)* is treatment through regimen that is decided according to the nature or pathogenesis of the disease. If patient is having *Sue mizaj* (derangement of temperament), life style modifications; Diet, Sleep, Physical Exercise, climate and intervention such as *Dalak* (Massage), *Hamam* (Turkish Bath), *Inkibab* (Inhalation), etc is done. In patients having diseases of structure (*Sue Tarkeeb*); *Fasd* (Venesection), *Taleeq* (Leeching), *Hijammah* (Cupping), *Kayy* (cauterization), *Qay* (emesis), *Tariq* (Diaphoresis), *Takmeed* (Fomentation), *Mushil* (Purgative), *Mudir* (Diuretic) is given.^[1,2]

Illaj bit tadbeer is a method in which the cure of a sick person and maintenance of general health is performed with the help of certain procedures, and the objective is achieved by elimination (*Tanqiya*) or diverting (*Imala*) of morbid humors and by enhancing the defense mechanism of body. In other words these are the best known “detoxification” methods.^[1] Among these methods *Nutool* is a novel method, in which decoction of certain drugs or medicated oils are poured over specific sites of body at certain height in some specific diseases. According to *Shiekh bu-Ali Sena Nutoolat* are also called *sakoobat*. *Nutoolat* or *tareda* are decoction of medicines or hot water that is poured on desired organs.^[2,3,4]

Nutool is divided into following types according to nature of liquid used.^[5,6]

Nutool barid (Cold irrigation); in it cold water or cold medicated decoction or oil with cold temperament is used e.g. in *Sarsam* (Meningitis) it is poured on head.

Nutool haar (Hot irrigation); in it hot water, hot medicated decoction, lukewarm oils or oil with hot temperament are used. It is mainly used in inflammatory conditions as an anti-inflammatory (*Muhalil-e-warm*).

Nutool-e-muqawi (Tonic irrigation): It is used mainly to provide nutrition to any weak organ, in its first *Haar Nutool* and then *Barid Nutool* is given to improve blood circulation of the organ and acts as a nerve tonic.

Aims and Objectives of *Nutool*

The objectives of performing *Nutool* are enumerated below,^[1,5,6]

1. To disperse the morbid matter from the affected part (*Tahleel-e-mawad*); *Haar nutool* is used.
2. To alter the temperamental state of the organ (*Tadeel-e-Mizaj*) and as a tonic; *Haar* and *Barid Nutool* is used alternately.
3. To relieve pain, for softening of organs and to avoid congestion (*Imtalah*), as in trauma (*Zarba wa Sakta*); *Barid Nutool* is used.
4. To relieve fatigue; *Haar Nutool* is used.
5. To enhance or increase the blood supply, correct cold temperament or to rectify the temperament of a particular organ; *Haar Nutool* is used.
6. To relieve chronic diseases like Meningitis (*Sarsaam*), Paralysis (*Falij*), Arthritis (*Wajaul -mafasil*), Headache (*Sudda*), Insomnia (*Sahar*) and in certain mental disorders; *Haar* and *Barid Nutool* is used.
7. As nerve tonic (*Muqawi Asaab*) in patients of sexual disorders (*Zoofa e bah*); *Haar* and *Barid Nutool* is given alternately.
8. To achieve antispasmodic and detoxifying effect; *Barid Nutool* is used.

To evacuate waste products through skin; *Haar Nutool* is used.

Barid Nutool is done for vasoconstriction so that the morbid material does not enter the main circulation. When there is no congestion (*Imtilah*) *Haar Nutool* is done.^[5]

METHOD

The affected part on which *Nutool* has to be done should be kept uncovered. It is preferably done in supine position. Oil or other medicated liquids such as *Joshanda* (decoction of herbs), *Khaisanda* (infusion), milk, plain water, Luke warm water or Cold water is poured continuously in rhythmic flow onto the forehead or other specific organ from a height (approx.65cm or 0.5ft) for a specific period of 20-30 minutes allowing the oil. If *Nutool* is done on forehead care should be taken to cover the eyes with sterile gauze to prevent spilling of medication into the eyes.^[7,8,9] If any body part is weak due to *Sudda* (obstruction), or any

problem in a muscle or ligament like any injury or dislocation due to which the organ becomes weak, we should massage that organ with oil (*Rogan*) so that blood supply is restored and massage with *Rogan Banafsha* and go for *Haar Nutool*.^[10]

Duration of therapy

It depends on the chronicity of disease and is gradually tapered off with improvement of sign and symptoms e.g. -7 sittings for first 14 days, alternatively followed by 4 sittings twice weekly for two weeks and then 1 sitting once weekly or adjusting the regimen according to improvement of patient.^[7]

Mechanism of action and physiological effects of *Nutool*

In the process of *Nutool* the temperature of the affected part is raised as a result of which the blood circulation increases, the morbid material gets dissolved (*Tahleel*) and more nutrients reach the organ changing its *Mizaj* (temperament).^[5]

Barid Nutool is done for vasoconstriction so that the morbid material does not enter the main circulation. When there is no congestion (*Imtilah*) *Haar Natool* is done.^[5]

With experimentation, research and recent advances in medical sciences the physiological changes induced by *nutool* therapy have been understood to a greater extent. The process of *tanteel* results in number of effects that include stimulation of different nerve plexus, glands and brain cells,^[12] it also induces relaxation similar to that in medication which is reflected by decreased heart rate, bradycardia, lowered sympathetic tone, slowing of alpha waves on EEG, decreased tidal volume and CO₂ excretion.^[13] *Nutool*, if done on forehead has been proven to have psychoneuroimmunological effects which also leads to anxiolysis. Biochemical changes include suppression of noradrenaline, decrease of PMN/lymphocyte ratio and alpha receptors which suggest a sympathetic suppression rather than parasympathetic activation. The impulses from the forehead cause a stimulation of the trigeminal nerve and also a somato-autonomic reflexes and changes in levels of various neurotransmitters including serotonin and catecholamine, resulting in sympathetic suppression and physioimmunologic changes of peripheral circulation and natural killer cell activity.^[14]

Further studies done on this effect showed that the skin over the forehead is conveyed by the ophthalmic branch of trigeminal nerve to the reticulo-spinal neurons. A small fraction of this causes an immediate motor response and much of the remaining is stored for control of motor

activities. Therefore, repeated stimuli are needed for consolidation of this information which needs 5-10 minutes and about one hour for stronger consolidation. This is logic and explanation of carrying out *Nutool* for about 45 minutes. Also to achieve the permanent effects of *Nutool*, there must be change in response characteristics of different neuronal pathways, which may be brought about by regular therapy for a fortnight. Regular or continuous pressure input generates continuous impulse to the central nervous system thereby continuously stimulating CNS. Practicing this procedure regularly for 15days may lead to long lasting stimulation of CNS.^[12]

The *Nutool* therapy has been proven to induce a feeling of relaxation. The oils and decoction in *Nutool* therapy absorbed through, skin have curative benefits and therapeutic uses are achieved by the use of specific drugs. Many studies have been carried out to know the efficacy of various oils used in *Nutool* therapy. In one such study carried out recently it was observed that Lavender oil has a better and more potent anxiolytic effects when dripped on forehead as compared to plain sesame oil. It was believed to be due to presence of relaxing essential oils in lavender.^[15] In primary insomnia patients, another controlled study on *Nutool* therapy compared the effects of *Nutool* therapy with *rogan-e-banafsha* and *rogan-e-gul*. The results not only showed decrease in severity of insomnia in both groups but it was also observed that the use of both these oils enhanced the efficacy of the therapy significantly as evidenced by the improvement in day-time somnolence, sleep latency, dysfunctioning and mental stress and depression.^[8]

Management of different diseases by *Nutool* as an adjuvant therapy

1. *Sudda-e-barid or Balgami (Phlegmatic headache), Duwar wa subat* (vertigo and comma); *Nutool* of following drugs in equal quantity are recommended; *Maticaria chamomilli (Baboona)* *Trigonella uncata (Akleelul Mulk)*, leaves *Anethum sowa (Barge garshabt)*, *Artimisia vulgaris (Baranjasif)*. *Lavendula stoechas (Ustukhudus)*, *Artimisia maritime (Darrmuna turki)*, *Origanum majorana (Marzan josh)*, *Mellisa officinalis (Badranj boya)*. *Curcuma longa (laung)*, *Mentha piperita (Pudina dushti)*, *Zataria multiflora (Satar farsi)*, red earth (*Shah Armani*).^[4]
2. *Sudda-e-har, sehar* (Choleric headache, Insomnia); Oil of *Rosa domestica (Rogan gulab)*, vinegar (*Sirka*) and *Rosa domestica (Gul surakh)* are used.^[11]
3. Alcoholic headache *Sudah khumari*; *Rosa domestica (Gulab)*, Vinegar derived from *Vitis vinefera (Sirka angoori)* are mixed together and *Nutool* is done.^[4]

4. *Sakta* (shock); *Origanum majorana* (*Marzangosh*), *Anethum sowa* (*Soya*), *citrus medica vartydica* (*Barg-e-utraj*), *Zatoria multiflora* (*Satar*), *Maticaria chamomilli* (*Baboona*), *Trigonella uncata* (*Aklelul mulk*), *Mentha piperita* (*Pudina*), *Ruta graveolans* (*sudaab*) and *Thymus vulgaris* (*Hasha*) are taken in equal quantity for *Nutool*.^[4]
5. *Warm-e-suddi* (Mastitis); Vinegar (*sirka*) with hot water nutool is done. Following drugs are also used in mastitis in equal amount after boiling them in equal quantity; *Maticaria chamomilli* (*Baboona*), seeds of *Anethum sowa* (*Tukhm Soya*), *Trigonella foenum* (*Hulbah*) and *Castor canadensis* (*Jund be daster*).^[4]
6. *Warm-e-raham* (Endometritis); *Anethum sowa* (*Soya*), *Brassica oleraceae* (*Kirme Kula*), *Althea officianalis* (*Khatmi*), *Violo odorata* (*Banafsha*), *Maticaria chamomilli* (*Baboona*), *Origanum majorana* (*Marzanjosh*) are taken in equal quantity for *Nutool*.^[4]
7. *Waja ul mafasil* (Arthiritis); *Cuscuta reflexa* (*Akash bael*) and *Solanum nigrum* (*Makooh khushk*) are used for *Nutool*, followed by massage with *Roghan gul* or *Roghan hina* mixed with powdered *Juniperus communis* (*Abhal khushk*).^[4]
8. *Sarsam haar* (meningitis) and *Sehar* (Insomnia); following drugs are used for *nutool* in equal quantity; *Violo odorata* (*Gul-e-Banafsha*), *Lactuca sativa* (*Tukhm-e-kahu*), *Rosa domestic* (*Gul Surkh*), *Maticaria chamomilli* (*Gul-e-baboona*), *Papaver soniferum* (*Post-e-khashkhash*).^[4]
9. *Shaqiqahar* (migraine); After expelling the disease –causing matter, *Papaver somniferum* (*khashkhash*), *viola odorata* (*banafsha*) and wheat husk decoction is used as *nutool* on head.^[16]
10. *Melancholia*; For expulsion of *saudavi* matter and correction of temperament of brain drugs like *Anethum sowa* (*shibt*), *Iris florentina* (*sosan*), *Maticaria chamomilli* (*babuna*), and *Trigonella uncata* (*nakhuna*) are used^[17]
11. *Nisyan* (Amnesia); *Maticaria chamomilli* (*Baboona*), *Trigonella uncata* (*nakhuna*) *Althea officinalis* (*Khatmi*), or its leaves *barg-e khatmi*, *Canthamus tictorius* (*qurtum kofta*) can be used as decoction for *nutool* after massaging the scalp continuously with a soft object.^[18]
12. *Mania*; Dried and fresh *banafsha*, *sapistan*, grinded *jaw*, wheat husk, rose, *Murraya paniculata* leaves (*barg-e kamni*), *bagr-e isapghol* or *barg-e khubazi* are boiled and poured over soft palate so that the effect reaches the brain.^[18]
13. *Sura* (Epilepsy); *Maticaria chamomilli* (*babuna*) and *Trigonella uncata* (*nakhuna*), *Origanum majorana* (*Marzanjosh*) are used as *nutool* on head.^[16]

14. *Falij* (Paralysis); 35gms of rose oil are added to 450gms of water and this mixture is heated on slow flame till the vinegar is burnt off. The mixture is strained and used for *nutool* on head.^[18]
15. Renal disorders (*Amraz kuliya wa Masana*): Retention of urine (*Ahtibas-e-bowl*); *Tribulus terrestris* (*Gokhuru*), *Maticaria chamomilli* (*Baboona*), *Althea officinalis* (*Khatmi*), *Anethum sowa* (*Soya*), *Apium graveolens* (*Tukhm e karafs*), *Trigonellum foenum* (*Meethi*), *Carthamus tinctorius* (*Tukhm-e-kad*), Root of *Capparis spinosa* (*Beekh Kibr*), *Viola odorata* (*Banafsha*), leaves of *Portulaca oleracea* (*Khurfah*), *Brassica oleracea* (*Kirm-e-kula*) are used for *Nutool*.^[4]
16. Reproductive disease (*Amraz-e-tanasul*) such as *Orchitis* (*Warm-e-Khusya*); *Dry Mentha arvensis* (*Naena*), *Origanum majorana* (*Marzangosh*), *Solanum nigrum* (*Makoh*) are used in equal quantity for *Nutool*.^[4]
17. *Suda reehi*; *Nutool of shayah* (*dardmuna*), *baranjasif*, *satar*, *nakhoona*, *karafs*, *soya* and *marzangosh* is given.

CONCLUSION

Nutool is very effective method of treatment in regimental therapy for various disorders and complications as documented in classical unani literature. This technique and regimen is cost effective, easy to administer, relaxing, safe and without possible side-effects as compared to oral medication. The clinical studies done to evaluate the efficacy of this therapy has shown very promising results owing to its calm relaxing and holistic nature besides providing physical and psychological benefits. Therefore to make this patient friendly regimen more useful in the present times of physical, neurological and psychological crisis further research on therapeutic evaluation on scientific parameters is needed. Also the detailed research on the efficacy of compound *Unani* formulations used in this therapy need to be carried out.

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CONFLICT OF INTEREST

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