

TRADITIONAL AND INTEGRATIVE MEDICINE



Trad Integr Med, Volume 2, Issue 1, Winter 2017

Review Article

A Review on *Dalk* (Massage) with Special Reference to the Prescribed Medications

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Received: 13 Dec 2016 **Revised:** 10 Jan 2017 **Accepted:** 16 Jan 2017

Abstract

Dalk is one of the oldest forms of therapies in use since ancient times. It involves the manipulation of body tissues with hands, cloth or any suitable object. In Unani medicine, dalk is based on the principle of tanqiyah (expulsion) and imala (diversion). In addition to the comforting feeling provided by human touch, massage has been demonstrated to have clinically significant physiological effects on the body. It increases blood flow, reduces stress and also has immediate sedative effects. Depending on the individual patient, different types of dalk are described which are used in combination with certain medicines or oils, or with bare hands for different disorders. Although largely a safe therapy, a few contraindications do exist, which are mainly advised for prevention of any adverse events. Unani physicians made significant advances into dalk and devised specific prescriptions for a large number of ailments. The prescribed formulations for dalk are mostly oils, but in certain conditions the decoction, paste, powder or extract of drugs is also prescribed, the basis of which is the individual mizaj (temperament) and also the disease.

Keywords: *Dalk*, Massage Therapy, Morbid Matter

Citation: Nikhat S, Fazil M. A Review on *Dalk* (Massage) With Special Reference to the Prescribed Medications. Trad Integr Med 2017;2(1):39-52.

Introduction

Dalk (massage therapy) is perhaps the oldest forms of treatment which possibly originated as a measure to provide a human touch, to demonstrate compassion and to alleviate certain sufferings. "Laying on of hands" was the principal therapeutic measure during history in ancient Greece, where the Father of Medicine, Hippocrates mentioned that the "physician ought

to be skilled in numerous things, most particularly in rubbing" [1]. Massage is defined as the systematic manipulation of the soft tissues for therapeutic or palliative purposes [2]. In Unani medicine, *dalk* is prescribed to normalize the tonicity of tissues, to improve circulation, to relieve flatulence, to increase metabolism, as an analgesic measure, for diversion of morbid matter etc. In effect, *dalk* has been considered as

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"hazm-e-akhar", i.e. the last phase of digestion; since dalk aids in the removal of morbid matters through the skin, which may not be sometimes expelled through other routes [3]. When done in a specific manner, dalk has mohallil (resolving) effects and increases the dispersal of wastes from an organ, while the use of oil during a specified dalk has a preservative action on the tissue fluids of the massaged organ; the underlying difference being of the type of strokes employed [4].

Methods

This review was primarily aimed at exploring the rich heritage of Unani classical medicine as well as to ascertain the scientific validation of the therapy. Therefore, Unani classical books were mainly consulted for gathering the information related to the kind of oils and medications use. Only classical authentic Unani textbooks were consulted to gain access to the information related to use of *dalk* in all kinds of diseases. The literature review was completed by the authors themselves in the library of Faculty of Medicine (U), Jamia Hamdard and Hakim Mohd. Said Central Library, Jamia Hamdard.

All major databases (Google Scholar, Science Direct, Pubmed) were searched extensively in all time periods to search for information related to mechanism of action of dalk. We selected only those references which focused on explaining the physiological changes associated with *dalk*, and excluded those which provided only epidemiological data. Also, a database search was made to look out for any possible sideeffects which may have arisen as a consequence of *dalk*. We included all possible adverse events reported in studies.

Inclusion criteria for selection of Unani classical books and literature:

- 1. Original Unani classical textbook which is accepted as an authentic reference. This was done to collect the most authentic information by the authors themselves, rather than relying on published documents.
- 2. Contained some information related to dalk.

Exclusion criteria for books and literature:

- 1. Unani books other than classical texts.
- 2. Drugs which are no longer available, or whose identity could not be established were not included in the review. If any formulation contained such a drug, it was also not included.

Mechanism of action

In Unani medicine, dalk is based on the principle of tangiyah (expulsion) and imala (diversion). Various combinations of the four basic dalk strokes can be made to achieve a result which may involve expelling wastes or merely diverting them from the diseased area. In addition, it is also described to have immediate sedative effect [5]. With the advancement in medical science, there has been deeper understanding of its mechanism of action. In addition to the apparent relaxing feeling, massage has also been proven to improve immunological markers and decrease cytokine production in a sustained manner in healthy individuals. There is also an increased production of certain pro-inflammatory cytokines with a more frequent regime [6]. Functional MRI has revealed that massage of moderate intensity has effects on amygdala, hypothalamus and anterior cingulated cortex, all of which are involved with stress regulation [7]. There is an increased arterial flow due to dilatation of peripheral vessels, while deep massage promotes venous return and promotes stroke volume [8]. In addition, there is evidence that the active constituents of the drugs / oils are absorbed into the percutaneously with massage and reach significant blood levels in a defined duration [9]. This may help explain the lasting effects of massage therapy.

Types of dalk

Depending on the pressure applied and the nature of strokes, four basic strokes of *dalk* are described in Unani medicine, viz.-*dalk-e-sulb* (hard pressure massage, in which the tissues are pressed and force is applied. This helps in strengthening of tissues and tightens skin pores), *dalk-e-layyin* (massage done with soft strokes, it helps in relaxing the tissues and opens the pores),

[3,4], dalk-e-kathir (massage done for a prolonged duration, this increases catabolism and aids in reduction of body fat) and dalk-emotadil (massage done for a moderate period of time, this helps in increasing muscle mass). Different permutations and combinations of these strokes give rise to 9 basic types of dalk namely, dalk Sulb kathĪr (hard massage for long period of time), dalk Sulb qalĪl (hard massage for short period of time), dalk Sulb mo'tadil (hard massage for moderate duration), dalk lavvin kathĪr (soft massage for long duration), dalk layyin qall (soft massage for short period), dalk layyin mo'tadil (soft massage for moderate duration), dalk mo,tadil kathĪr (moderate pressure massage for long duration), dalk mo,tadil qalĪl (moderate pressure massage for short duration), dalk mo'tadil (moderate pressure massage for a modest duration)[5]. In addition, certain specialized types of dalk are also described, i.e., dalk-e-khashin (friction massage, massage done with a rough cloth in order to increase the cutaneous circulation), dalk-eamlas (massage done with a soft cloth or soft hands, this helps in increasing blood flow to the massaged area without causing friction on the skin). Dalk-e-Ista'dād (pre-exercise massage) is a specialized form of massage which was employed by Unani physicians to help prepare for vigorous physical activity. The recommendation is to initiate with soft strokes and progress to harder strokes; oils were also sometimes used for this purpose. Such massage increases local blood circulation and improves muscle flexibility. After the required physical activity/sport, dalk-e-istardad or dalk-emusakkin (post-exercise/relaxing massage) was performed. Dalk-e-istardad should be done with soft strokes and for a moderate duration, and the use of oils is recommended for such massage [4,10]. This dalk is basically has an essential role at the end of activity, for it promotes the removal of pent-up wastes, and also tones up muscles. It is therefore considered as an obligatory component of physical activity [3].

Precautions and recommendations

Dalk is a popular and effective method of health

preservation, promotion and restoration in all ages. With the recent surge in lifestyle disorders, a significant proportion of which are related to mental stress, dalk has the potential to play a pivotal role in restoring mental health. Although largely free of adverse effects, yet simple precautions are advised. Dalk should always be performed at a comfortably warm place. In young healthy persons, it should be performed after the process of digestion is ended. For people suffering from sue-mizāj hār (abnormal hot temperament), the massage should always be layyin mo'tadil (soft, moderate duration). While for patients suffering from sue-mizāj hār ratab (abnormal hot and most temperament), the opposite of this is advisable. In old age, dalk should always be moderate in terms of strength and duration; however, it may be done after each meal to help them relax [3]. Certain adverse events have been attributed to dalk, chiefly displacement of urethral stents, nerve damage, pain syndromes, pseudo-aneurysm, pulmonary embolism etc. are some of the side effects attributed to wrong techniques applied or massage done by lay persons [2]. However, the incidence of such cases is about 10% with professionals [11]. For non-professional massage therapies, the incidence may be much more but is largely unreported [2]. Contraindications to massage are few and chiefly based on the practitioner's judgment. Burns, skin infections, tender areas, acute injuries, fractured joints and acute febrile illnesses are some of the common contraindications. Massage should also be avoided over malignant tumors [12].

The following table includes some of the oils/medications and recommendations prescribed for dalk in traditional Unani textbooks:

Table 1 - Different formulations prescribed in Unani texts for dalk (massage)

S. No.	Disease	Different Formulations prescribed in Unani texts for dalk (massage)	Reference
		orders of Central and Peripheral Nervous System	
1.	Sudā '-e-ghayr māddi (Headache, not associated with humoral change)	Massage with Roghan-e-Sosan, Roghan-e-Qust, Roghan- e-Chameli, Roghan-e-Mirzanjosh, Roghan-e-Habb al Ghār or Roghan-e-Bān	[13]
2.	Sudā '-e-hād (acute headache)	Massage the soles of the feet with <i>Roghan-e-Banafsha</i> to which <i>Shorah</i> has been added.	[14]
	Shoot oh	Take the juice of fresh root of <i>satāwar</i> , mix with an equal quantity of <i>Roghan-e-kunjad</i> and heat the mixture. When then water has evaporated, use the oil for massage on the scalp.	[15]
3.	Shaqīqah (Migraine)	Massage the forehead and earlobes on the side of pain when it occurs. Massage should be done vigorously with a cloth till it is flushed.	[16]
		Mix an equal amount of <i>Roghan-e-Kāhu</i> and <i>Roghan-e-Khashkhāsh</i> and massage gently on the head.	[17]
		For relieving spasm, massage the hands and feet with Roghan-e-Bābūnah, Roghan-e-Gul or Roghan-e-Qust and straighten the fingers.	[17]
4.	Sara' (Epilepsy)	For children, mix ' <i>Ūd Ṣalīb</i> in vinegar and make a paste with <i>Roghan-e-Gul</i> and massage over the whole body.	[18]
7.	Sara (Epilepsy)	If it is associated with menstrual disorders, then massage the scalp with <i>Roghan-e-Banafsha</i> or <i>Roghan-e-Sosan</i> .	[17]
		If epilepsy is caused due to combustion of <i>şafra</i> , then massage with laxative oils such as <i>Roghan-e-Banafsha</i> on the scalp.	[14]
5.	Fālij (Paralysis)	Massage the affected area with <i>Roghan-e-Qust</i> . Composition of <i>Roghan-e-Qust</i> : <i>Qust</i> 35 gm, <i>Filfil</i> ,	[19]
		'Āqarqarḥa, farfiyūn-105 gm each, Jund bedstar 17.5 gm, Roghan-e-Kheri or Roghan-e-Nargis 200 ml.	
		Massage with Roghan-e-Qust or Roghan-e-Āqarqarḥa on the affected site.	[18]
		Massage the affected area with oils having hot temperament, i.e., Roghan-e-Nārdīn, Roghan-e-Qust, Roghan-e-Kāknaj, Roghan Badām Talkh, Roghan Utraj, Roghan-e-Balsān etc. If the patient is not weak, then Jund bedstar and Farfiyūn should also be added for massage. After massage, rub the affected area with a rough cloth till the skin is flushed.	[16]
		After mus 'hil therapy, massage with lukewarm Roghan- e-Surkh, Roghan-e-Kalān or Roghan-e-Sīr.	[17]
		Roghan-e-Qust may also be used for massage on the affected areas.	[19]
		If paralysis is preceded by colic, then massage with Roghan-e-sosan, Roghan-e-Nargis and Roghan-e-Nārdīn is effective. Coconut oil may also be used for this purpose.	[13]
		Massage the vertebral column with oils having hot temperament e.g. Roghan-e-Qust, Roghan-e-Biskhapra etc. Bykh-e-Sosan may also be added to it. Massage should be done strongly till the skin is flushed. This is especially recommended in paralysis associated with numbness.	[20]

		Rub the affected area till it is flushed. Then apply	F103
		Roghan-e-Qust, Farbiyūn (Farfiyūn) and Miy'a.	[18]
		Massage the vertebra with resolvent and neurotonic oils	
		mixed with Jund Bedstar and 'Āgargarḩa.	
		Momiyai mixed with Roghan-e-Hina is also effective in	
		paralysis.	[15]
		Massage the affected parts with Zanjabīl and zaranbād.	
		Qust talkh, Murr Makki, Farfiyūn may be mixed in	
		Roghan-e-Gul and used for massage when lukewarm.	
		If the paralysis has been caused by neurasthenia, massage	
		the whole body with Roghan-e-Nārdīn. Massage may	[18]
		also be done with Roghan-e-Qust.	
		Mix fresh juice of the leaves of <i>Sudāb</i> 1.864 litre with	
		Roghan-e-Sosan 466 ml and heat till all the water	
		evaporates. Strain it and again place on the fire and add	F1.41
		powdered Jund bedstar, 'Āqarqarḩa, Qust 33.45 gm	[14]
		each, farfiyūn 16.725 gm, Roghan-e-Balsān, Roghan-e-	
		turb each 66.9 ml and massage on the affected area.	
		Roghan-e-Qust, Roghan-e-Nārdīn, Roghan-e-Farfiyūn or	[15]
	<i>Istarkhā</i> (atonicity)	Roghan-e-Shonīz.	[13]
	and <i>Fālij</i>	To maintain the normal warm temperament of the organs,	[15]
6.	(paralysis)	massage with Roghan-e-Qust is effective.	[13]
	associated with	Use such <i>moḥallil</i> (resolvent) drugs for massage which	
	<u></u> harārat	have <i>qabiz</i> (astringent) property also, e.g., <i>Anīsūn</i> , <i>Miy'a</i> ,	[15]
		Jund bedstar, and Izkhar.	
		Massage with Roghan-e-Sosan and Roghan-e-Nargis.	[18]
		Mix any one of Roghan-e-Bābūnah, Roghan-e-Nargis,	
7.	Istarkhā (atonicity)	Roghan-e-sosan, Roghan-e-bed injīr (1 part) with	
· ·		Roghan-e-Balsān (10 parts) and massage on the affected	[15]
		area. Especially recommended for <i>istarkhā</i> associated	
		with bohrān (stage of crisis and lysis in a disease).	
	<i>Ikhtilāj</i> (spasmodic	Massage the affected area with Roghan-e-Sudāb,	
8.	contraction of the	Roghan-e-Qatha al-Ḥumār, Roghan-e-Jund bedstar and	[18]
	muscles)	farbiyūn.	
9.	Ikhtilāj of face	Massage the face with Roghan-e-Farbiyūn and	[18]
	Thirties of Table	ʻĀqarqarḩa.	[.0]
		Massage the face with Roghan-e-Qust, Roghan-e-Nārdīn	[18]
		and Roghan-e-'Āqarqarḥa.	
		Massage should be done with the oils indicated in	[16]
		paralysis, and over the unaffected muscles.	
		Rub the lips and face till red, then massage with Roghan-	F1 07
		e-Jawz. Such massage should be done at a warm place.	[18]
10.	Laqwah (Facial	Also, massage the jaw and vertebra with Duck fat.	
	palsy)	The following preparation has been reported to cure	
		facial palsy in a single application: after <i>istafrāgh</i> , ask the	
		patient to hold <i>halela siyāh</i> in his mouth on the affected	
		side and massage over the affected area with Roghan-e-	[18]
		Ban, Roghan-e-Qust and Ghāliya (a mixture of perfumes made by mixing powdered suk, musk and camphor in	_ -
		ambergris and added in <i>Roghan-e-Bān</i> or <i>Roghan-e-</i>	
	'Asābi dard	Nīlofar.	
11.		Massage with Roghan-e-Ghār and Roghan-e-Sosan is	[18]
	(Neurogenic pain)	effective.	
		Mix Jund bedstar or farbiyūn in Roghan-e-zanbaq and	[16]
		massage on the affected area.	

		Mix Roghan-e-Gul, Roghan-e-Mūrad and small amount of vinegar and massage on the head.	[13]	
		Massage with <i>Roghan-e-Biskhapra</i> is especially recommended.	[20]	
		If tremors have been caused by cold exposure, then after proper tanqiya (a process of expelling of morbid wastes), massage with lukewarm Roghan-e-Qust, Roghan-e-Surkh, Roghan-e-Kuchla or Roghan-e-Sīr for a few days.	[17]	
12.	Ra'sha (Tremors)	Mix <i>Jund bedstar</i> , ' <i>Āqarqarḥa</i> and <i>ḥiltīt</i> in Olive oil and use for massage. Especially recommended for <i>ra</i> ' <i>sha baridah</i> caused by exposure to cold water.	[15]	
		Massage with a mixture of Roghan-e-khardal and Roghan-e-bābūnah.	[15]	
		If <i>ra'sha</i> has been caused by cold exposure, massage the affected area with <i>Jund bedstar</i> , 'Āqarqarḥa, hiltīt 3 gms each mixed in olive oil 48 ml.	[17]	
		After proper tanqiya, massage with Roghan-e-Surkh, Roghan-e-Sīr, Roghan-e-Qust or Roghan-e-Kuchla.	[17]	
13.	Tashannuj (Spasm)	Massage with Roghan-e-Qust is effective.	[19]	
		Massage with lukewarm <i>Roghan-e-Banafsha</i> or <i>Roghan-e-Kadū</i> , especially focus on the origin of affected muscles.	[19]	
		For spasm caused by dryness, massage with Roghan-e-Banafsha, Roghan-e-Nīlofer, Roghan-e-Kadū and wax.	[18]	
		For <i>tashannuj</i> caused due to moist humors, mix <i>Mom</i> zard 80 gm, Zayt-al-Infāq 480 gm, fresh farbiyūn 40 gm and massage on the endings of affected muscles.	[18]	
		Alternatively, first massage the affected part till it is flushed. Then ask the patient to sit in a decoction of Barg-e-Ghār, Mirzanjosh and Shīļh. When the skin is reddened, massage with Roghan-e-Qusţ and Roghan-e-Sosan.	[18]	
		Powder Jund bedstar, farfiyun, miy'a saila 4 gms each and mix with mom safaid 24 gms, Roghan-e-Sosan 48 ml or Roghan-e-bedinjīr 48 ml and massage on the affected area.	[17]	
		Massage with oils having hot temperament especially if it has been caused by cold weather.	[16]	
14.	Khidr (Numbness)	Massage the affected area with Roghan-e-Qust and Roghan-e-farfiyūn.	[13]	
		Only Roghan-e-Qust may be used for massage.	[19]	
		Mix 'Āqarqarḥa with wine and olive oil and massage on the affected area.	[17]	
		Massage the lips with Roghan-e-Badām.	[16]	
15.	Sarsām	Mix banafsha in milk and use for massage.	[19]	
15.	(meningitis)	Massage the scalp with Roghan-e-Kāhu, Roghan-e- Badām and Roghan-e-Khashkhāsh.	[17]	
16.	Sakta (stupor, coma)	Prepare a mixture of <i>Roghan-e-Farfiyūn</i> , <i>Roghan-e-Qust</i> and oil of wild onion and massage all over the vertebral column.	[13]	
	,	Massage with any suitable oil having warm temperament, to which <i>gandhak</i> has been added.	[18]	
17.	Sakta balghami (coma associated with phlegmatic humor)	Any oil having warm temperament, like <i>Roghan-e-Sudāb</i> , <i>Roghan-e-Sosan</i> may be used for massage on the vertebra after adding wax into the oil.		

		Mix equal amounts of Roghan-e-Kāhu and Roghan-e-	
1.0		Labūb Sab 'ah and massage on the head.	[17]
18.	Seḩar (insomnia)	Boil Khashkhāsh seeds and bhang seeds in Cow's milk	F177
		and massage on the soles of feet when cool.	[17]
19.	Kābūs bārid (Nightmares associated with cold temperament)	Massage the head with Roghan-e-Mastagi, Roghan-e- izkhar, Sudāb.	[15]
	1	Massage of the lower extremities is beneficial.	[19]
20.	Kābūs	If it is due to muscular pain, then massage of the scalp	
20.	(Nightmares)	with Roghan Labūb Sabʻah or Roghan-e-banafsha is	[17]
2.1	T = (T ::)	beneficial for inducing sleep.	5101
21.	Junūn (Insanity)	Massage with Roghan-e-Banfasha inside the hammam.	[13]
	Malīkhūliya	Massage the abdomen with <i>Roghan-e-Sosan</i> For relieving insomnia and providing moisture to brain,	[18]
22.	(melancholia)	massage with equal quantities of <i>Roghan-e-Kadū</i> and	[17]
	(meranenona)	Roghan-e-Kāhu; or Roghan-e-Labūb Sabʻah.	[1/]
22	17: 5 (D .:)	Massage the head with Roghan-e-Badām or Roghan-e-	F177
23.	Nisyān (Dementia)	Labūb Sabʻah.	[17]
		Disorders of Respiratory system	
		Mix Olive oil in warm water and massage on the chest	[13]
		Massage with the following preparation: wax, duck fat,	[20]
		chicken fat, sheep fat, Roghan Zard, and fresh Zūfa	[2~]
		Mix Moam safaid 6 gm with Roghan-e-Gul 12 gm and	[17]
24.	Zāt al Janb (Pleurisy)	heat it. After that, add <i>Lobān</i> , <i>Mastagi</i> 3 gms each and	[17]
Z 4.		massage while lukewarm. Make a fine powder of Za'frān 1 gm, Ailwa 1 gm and	
		mix with <i>Qayrūţi Ārad Karsana</i> 12 gm and massage on	[17]
		the chest.	[, ,]
		Mix camphor 3 gm and Roghan-e-Gul and massage on	[17]
		the chest.	[17]
25.	Zāt ar-Riyah Massage the chest with Banafsha, Moam safaid and		[21]
(Pneumonia) mucilage of Asaphgho		mucilage of Asaphghol.	[2.1]
26.	Zāt ar-Riyah Falghamūni (Sanguineous Pneumonia)	Massage the chest with <i>Banfasha</i> , <i>Moam safaid</i> , and <i>Lu'ab-e-Asaphghol</i> initially. When the chest wall appears warm, massage with ghee, bone marrow etc.	[21]
		Massage the extremities with strong pressure and the direction of strokes should be from upper to lower direction.	[20]
27.	Nafs-ud-Dam (Haemoptysis)	Take Roghan-e-Ās and add a small quantity of Murr Makki and crushed Kundur, mix well and use for massage on the chest.	[16]
		Tie the hands and feet and massage with warm oil.	[21]
		To provide moderate warmth to the lungs, it is	
		recommended to rub the chest wall gently with a cloth.	[21]
		Oil should not be used unless weakness has been caused	r1
		by massage. Massage the cheet with Roghan a Sosan Roghan a	
		Massage the chest with <i>Roghan-e-Sosan</i> , <i>Roghan-e-Ghār</i> , <i>Roghan-e-Shibat</i> , <i>Sudāb</i> , and suitable oils having a	[21]
		warm temperament so as to relax the thorax.	[21]
28.	Ribu (Asthma)	Massage the chest with gentle strokes with <i>Roghan-e-</i>	50.13
		banafsha and Moam safaid	[21]
		Massage the chest with gentle strokes with Roghan-e-	[21]
		Nargis and Roghan-e-Bābūnah.	[41]

		Mix <i>Roghan-e-Alsī</i> 24 ml, <i>Mom safaid</i> 12 gm, fat from kidney of goat 12 gm, and massage on the chest while lukewarm.	[17]
29.	Ribu balghami (Asthma associated with phlegmatic humors)	To soften the hours and to assist in expulsion, make a qayrūţi with Mom zard, Roghan-e-Katān, fat from kidney of goat and massage on the chest.	[15]
30.	Amrāz-e-şadr (Chest diseases)	Kaf-e-Darya, Murr Makki, Naţrūn, Roghan-e-Balsān, Farfiyūn, Miy'a Saila-mix all ingredients and massage on the chest.	[21]
31.	Surfa (cough)	If caused due to cold, then massage the chest with Roghan-e-Sarson, Roghan-e-Nargis, Roghan-e-Sumbul etc. If it is caused due to moist humors, massage with soothing oils like Roghan-e-Qust, Roghan-e-Mastagi etc. If it is caused due to dryness, massage the chest with Roghan-e-Gul.	[14]
32.	Surfa bārid (cough associated with cold temperament)	Massage with Moam Zard, Roghan-e-Sosan, Roghan-e- Kheri and Roghan-e-Yasmīn on the chest.	[15]
	- cora temperament)	Disorders of Oral cavity	
33.	Waja'-e-dandān (Toothache)	Powder and mix <i>Filfil Siyāh</i> in honey and massage on the teeth and gums.	[19]
34.	Cold sensitivity	If the teeth are sensitive to cold things, massage the teeth with Roghan-e-Balsān, Roghan-e-Sosan and Roghan-e-Bān	[19]
		Massage the tongue with a powder of <i>Naushādar</i> , 'Āqarqarḥa, Filfil, Khardal, Waj (in equal quantities)	[19]
35.	Thiql-e-lisān (bradyglossia)	Massage the tongue with <i>Naushādar</i> and <i>Māzu</i> . If the disease is chronic, massage with <i>Ḥartāl Zard</i> , <i>Ḥartāl Surkh</i> , Lime, <i>Māzu</i> , Alum-mix all in equal quantities with vinegar and use for massage.	[19]
36.	Qula '-e-dehan (Apthous ulcers)	Powder Roghan-e-Gul, Nishāsta, Ṭabāshīr, 'Ads Muqashshar, dried dhaniya, Rasawt-mix all ingredients in camphor and massage the affected area.	[19]
		Disorders of Gastro-intestinal tract and liver	
37.	Oesophagitis	Massage the interscapular region with warm oils like Roghan-e-Bābūnah, Roghan-e-Shibat, olive oil, Roghan-e-Bān etc.	[15]
38.	Zoʻf-e-meʻda (weakness of stomach)	Massage the epigastric region with Roghan-e-Nārdīn.	[15]
39.	Qūlanj (colic)	Massage the abdomen with Roghan-e-Qust.	[17]
40.	Waram-wa-Dard- e-Me 'da (Gastritis and epigastric pain)	Massage the epigastric region with Roghan-e-Nārdīn.	[19]
41.	Su-e-haḍm (Indigestion)	Massage the epigastric region with Roghan-e-Nārdīn.	[19]
42.	Nafkh-e-Shikam (Flatulence)	Boil <i>Shonīz</i> and <i>Hab al-Ghār</i> in water, then boil any suitable oil with water and mix both. Use this preparation for massage on the epigastric region	[22]
43.	Wajaʻ al-fuād (Epigastric pain) caused by harārat or safrāwi humors	Massage the epigastrium with Roghan-e-Gul.	[15]
44.	Fuwāq (Hiccups)	Dissolve Mastagi in Roghan-e-Gul and massage on the	[22]

		epigastrium. Ask the patient to withhold breath during	
	7.1- (1	massage. Take one egg yolk and mix with Roghan-e-Gul 12 ml and	
45.	Zaḥīr (dysentry)	[17]	
		massage on the area overlying spasms. Disorders of musculo-skeletal system	
		Mix 'Āqarqarḥa, Boric powder, Mawīzaj, Masṭagi oil, henna oil, and massage on the affected area.	[16]
46.		Massage with Roghan-e-Qust and Roghan-e-Sosan on back and hip joint after huqna (enema).	[16]
	<i>Trq-un-Nasā</i> (Sciatica)	When the pain is severe, massage with <i>Roghan-e-Henna</i> in which a small quantity of <i>naṭrūn</i> and <i>sawf-e-zūfa</i> has been added.	[16]
		Dissolve mustard oil in water and heat till the water evaporates. Use this preparation for massage when lukewarm.	[17]
		'Araq-e- 'Ajīb may also be used for massage.	[17]
		Massage with Roghan-e-Chahār Barg.	[17]
47.	<i>Şalābat-e-mafāşil</i> (frozen / stiff joints)	Roghan-e-Kunjad, duck fat, chicken fat, mucilage of methi seeds, mucilage of Alsī-all in equal quantities mixed and used for massage.	[16]
	Wajaʻal-mafāşil Balghami (Arthritis caused by phlegmatic humors)	Massage with Roghan-e-dhatūra, Roghan-e-Ḥina and Roghan-e-Aurāq.	[23]
48.		Roghan-e-Bed Injīr, Roghan-e-Nārdīn, Roghan-e-Qusţ, Roghan-e-Badām Talkh.	[23]
40.		Roghan-e-Ḥurmal or Roghan-e-Nāranj.	[23]
		Lukewarm Roghan-e-Kuchla, Roghan-e-Gul-e-Aakh, Roghan-e-Qust or Roghan-e-Gul-e-Surkh	[17]
		<i>Roghan-e-Ḥina</i> lukewarm	[17]
	Wajaʻul Zuhr (Backache)	Roghan-e-Nārjīl Kuhna, Roghan-e-Tukhme Injīr, Roghan-e-Qurţum, Roghan-e-Qusţ, Roghan-e-Qanfaz, Roghan-e-Jawz Kuhna, Roghan-e-Qurţum and Roghan-e- Qusţ.	[23]
49.		Jund-bedstar mixed in any suitable oil having warm temperament.	[23]
		Roghan-e-Farfiyūn, Roghan-e-Sosan, Roghan-e-Qust for massage after flushing red with cloth massage.	[13]
		Roghan-e-Sudāb, Roghan-e-Habb al-Ghār	[13]
50.	Wajaʻ-ul-Warik	Farfiyūn, jundbestar, miy 'a saila. Any oil having a hot temperament and pleasant odour	[19]
50.	(Coxalgia)	may be used for massage.	[19]
51.	Wajaʻ ul Sāqayn (Pain in calves)	Mix 3 gms each of Bazrulbanj (Ajwain khurasani), Mastagi, and Suranjan talkh in Roghan-e-Gul and use for massage. [23]	
52.	Niqras (Gout)	For Niqras bārid (gout associated with cold temperament), first control the pain with medications, then nuţūl (irrigation) with hot water over the affected area and then massage with Roghan-e-Sosan.	[19,24]
		Massage with Roghan-e-Sumbul, Roghan-e-Ghār and Roghan-e-Sudāb.	[23]
53.	Taḥajjur-e-mafāşil (frozen joints)	Massage the affected joints with Roghan Chobchīni.	[23]
		Disorders of skin	
54.	Sharā (Urticaria)	Massage the affected area with finely powdered salt and Maida-Gandum mixed in equal quantities	[17]

		Massage the affected area with a mixture of sour lemon,	[19]
55.	Qūba (Ringworm)	ashq and vinegar. Sour lemon, Ashq, vinegar may be mixed and used for massage.	[17]
56. Jarb (Scabies)		Roghan-e-Chameli 10 gm, rose 50 gm, juice of lemun kāghzi 10 gm may be mixed and massaged on the skin.	
50.	Juro (Scaoles)	Mix sandalwood oil 10 gm with 5 gm rose and rub on the affected area.	[17]
		Prepare a mixture of Sandal Safed in 'Araq-e-Gulāb, Barg-e-Ḥina or Aab-e-Kasni Sabz and rub on the affected area after chilling it with ice.	[17]
57.	Hasf (Prickly heat)	Mix Fuller's earth with <i>Lu'āb-e-Khaţmi</i> and massage on the affected area.	[17]
		Make a fine powder of <i>Katīra</i> and mix with butter and massage on the affected area	[17]
58.	Juzām (Leprosy)	Massage the patient with a mixture of Ārad-e-Nakhūd, Ārad-e-Bāqla, and Ushnān inside a hammām. Repeated sessions of hammām are also recommended which should be accompanied by a massage with Roghan-e-Kadū and Roghan-e-Banafsha inside the hammām.	[19]
		Disorders of genito-urinary system	
59.	Zoʻf-e-kulya (Weakness of kidneys)	Massage with vinegar and Roghan-e-Gul over the flanks.	[23]
60.	Warm-e-şulb kulya (Chronic nephritis)	Take duck fat, chicken fat, cow-calf brain, <i>Gogul</i> , <i>Ratīnaj</i> (dissolved in warm water) -make a paste of all medicines in <i>kharal</i> and use for massage on renal area.	[16]
61.	Barūdat-e-kulya (Abnormal cold temperament of kidneys)	Fox fat, lizard fat, Roghan-e-Akhrot, Roghan-e-Pista, and Roghan-e-Qust are prescribed for massage over the renal area.	[25]
62.	Hasāt-e-kulya wa mathāna (Renal or bladder stone)	Massage the pelvis with Roghan-e-'Aqrab.	[19]
63.	Haşāt-e-kulya (Renal stone)	Another treatment prescribed for renal stones is massage over ureters and back with <i>Roghan-e-Aqrab</i>	[19]
64.	Istarkhā-e-masāna (incontinence)	Massage the pelvis with Roghan-e-Zanbaq, Roghan-e- Nārdīn, Roghan-e-Sudāb, Roghan-e-Qust, Roghan-e- sanobar, Roghan-e-Ghār, Roghan-e-Qasa-ul Humār in which Jund bedstar, hiltīt, behroza, jao-shīr have been added.	[25]
65.	Suls-al-Bawl (Incontinence of urine)	Massage with Roghan-e-Zanbaq.	[26]
66.	Kathrat-e-Bawl (Polyuria)	Massage the renal area with Sandalwood, <i>Aqāqiya</i> , Camphor, <i>Ajwain Khurāsāni</i> , and <i>'Araq-e-Gulāb</i> .	[26]
67.	Ikhtenāq-ur-Reḩam (Hysteria)	Massage the legs with strong strokes.	[19]
68.	Bawl fil-Farāsh (bed-wetting)	If it is caused by cold temperament, massage the pelvis with <i>Roghan-e-Nārdīn</i> .	[23]

Table: 2 - Botanical/English names of Unani drugs included in the text

1.	Āb-e-Kasni Sabz	Cichorium intybus Linn. green leaf juice
2.	Ab-e-Rasm Sabz Ālu Bukhāra	Prunus domestica Linn.
3.	Ārad-e-Baqla	Vicia faba Linn. Flour
4.	Ārad-e-Nakhūd	Cicer arietinum Linn. Flour
5.	Ads Muqashshar	Lens culinaris Medik. (peeled seeds)
6.	Ajwain Khurasāni	Hyoscyamus niger Linn.
7.	Anisūn	Pimpinella anisum Linn.
8.	Aqāqiya	Acacia nilotica (L.)
9.	ʻĀqarqarḥa / Roghan-e-ʻĀqarqarḥa	Anacyclus pyrethrum DC. (roghan=oil)
10.	'Araq-e-'Ajīb	(A polyherbal Unani formulation)
11.	'Araq-e-Gulab	Rosa damascena Mill. Distillate
12.	Asaphghol / Luʻab-e-Asaphghol	Plantago ovata Forsk. seeds (Lu'ab = mucilage)
13.	Ashq	Dorema ammoniacum D. Don. Gum
14.	Banafsha / Roghan-e-Banafsha	Viola odorata Linn. (roghan=oil)
15.	Barg-e-Ghār	Laurus nobilis Linn. Leaves
16.	Bazrulbanj	Hyoscyamus niger Linn.
17.	Behroza	Pinus longifolia Roxb.
18.	Bhang	Cannabis sativa Linn.
19.	Dhaniya Dhaniya	Coriandrum sativum Linn.
20.	Ailwa	Aloe barbadensis Linn.
	Farbiyun / Farfiyūn / Roghan-e-	
21.	farfiyun	Euphorbia resinifera Berq.
22.	Filfil / Filfil siyāh	Piper nigrum Linn.
23.	Gandhak	Sulphur
		Gum from Commiphora mukul (Hook ex Stocks)
24.	Gogul	Engl.
25.	Ḩartāl Surkh	Arsenic oxide
26.	Ḩartāl Zard	Arsenic trisulphide
27.	<i>Ḥiltīt</i>	Asafoetida
28.	Ḩina/ Barg-e-Ḩina / Roghan-e-	Lawsonia inermis Linn. (barg=leaves,
	<i>Ḥina</i>	roghan=oil)
29.	Izkhar	Cymbopogon jwarancusa (Jones) Schult.
30.	Jao-shīr	Ferula galbaniflua Boiss. & Buhse
31.	Jund bedstar / Roghan-e-Jund bedstar	Castoreum (roghan=oil)
32.	Kaf-e-darya	Alcyonium
33.	Katīra	Cochlospermum religiosum (Linn.) Alston
34.	Khardal/ Roghan-e-khardal	Brassica nigra (Linn.) K. Koch (roghan=oil)
35.	Khashkhāsh / Roghan-e- Khashkhāsh	Papaver somniferum Linn. (roghan=oil)
36.	Kundur	Boswellia serrata Roxb. ex Colebr.
37.	Lemun kāghzi	Citrus aurantifolia
38.	Lobān	Styrax benzoin Dryand.
39.	Luʻab-e-Khatmi	Althaea officinalis Linn. Mucilage
40.	Maida-Gandum	Wheat powdered after removal of outer layer
41.	Mastagi / Roghan-e-Mastagi	Pistacia lentiscus (roghan=oil)
42.	Masiugi / Roghan-e-Masiugi Mawīzaj	Delphinium staphysagria (Mountain raisins)
43.	Māzu	Quercus infectoria Oliv.
44.	Methi	Trigonella foenum-graecum Linn.
45.	Miy'a / Miy'a saila	Liquidamber orientalis Mill.
46.	Mirzanjosh / Roghan-e-Mirzanjosh	Origanum vulgare L. (roghan=0il)
47.		
4/.	Moam safaid	Wax

48.	Murr Makki	Commiphora myrrha (Nees) Engl.
49.	Natrūn	Borax
50.	Naushādar	Sal Ammoniac
51.	Nishāsta	Wheat starch
52.	'Ūd Salīb	Paonea officinalis root
53.	Qayrūti Ārad Karsana	(A polyherbal Unani formulation)
54.	Qust talkh	Saussurea lappa
55.	Rasawt	Berberis aristata DC. (root bark extract)
56.	Ratīnaj	Resin from Pinus tree
57.	Roghan Zard	Clarified butter
58.	Roghan Badām Talkh	Prunus amygdalus (L.) Batsch.var.amara oil
59.	Roghan Chobchīni	Smilax china Linn.
60.	Roghan-e-Ās	Myrtus communis Linn. Oil
61.	Roghan-e-Akhrot	Juglans regia Linn. Oil
62.	Roghan-e-Alsī	Linum usitatissimum Linn. Oil
63.	Roghan-e-'Aqrab	Oil prepared from scorpions
64.	Roghan-e-Aurāq	(A polyherbal Unani formulation)
65.	Roghan-e-Bābūnah	<i>Matricaria chamomilla</i> Linn. Oil
66.	Roghan-e-Balsān	Commiphora gileadensis (L.) C. Chr. Oil
67.	Roghan-e-Bān	<i>Melia azederach</i> Linn. Oil
68.	Roghan-e-Bedinjīr	Ricinus communis Linn. Oil
69.	Roghan-e-Biskhapra	Trianthema portulacastrum Linn. oil
70.	Roghan-e-Chahār Barg	(A polyherbal Unani formulation)
71.	Roghan-e-Chameli	Jasminum arborescens Roxb. oil
72.	Roghan-e-Dhatūra	Datura metel L.
73.	Roghan-e-Gandum	Triticum aestivum Linn.
74.	Roghan-e-Ghār/ Roghan-e-Habbul- Ghār	Laurus nobilis oil
75.	Roghan-e-Gul	Rosa damascena Mill. Oil
76.	Roghan-e-Gul-e-Ākh	(A polyherbal Unani formulation)
77.	Roghan-e-Ḥurmul	<i>Peganum harmala</i> Linn. Oil
78.	Roghan-e-Jawz / Roghan-e-Jawz Kuhna	Juglans regia oil (Kuhna=old)
79.	Roghan-e-Kadū	Cucurbita moschata oil
80.	Roghan-e-Kāhu	Lactuca sativa Linn. Oil
81.	Roghan-e-Kāknaj	Physalis alkekengi Linn. Oil
82.	Roghan-e-Kalān	(A polyherbal Unani formulation)
83.	Roghan-e-Katān	Linum usitatissimum Linn. Oil
84.	Roghan-e-Kheri	Cheinranthus cheiri Linn. Oil
85.	Roghan-e-Kuchla	Strychnos nuxvomica oil
86.	Roghan-e-Kunjad	Sesamum indicum oil
87.	Roghan-e-Labūb Sabʻah	(A polyherbal Unani formulation)
88.	Roghan-e-Mūrad	Myrtus communis Linn. Oil
89.	Roghan-e-Nārjīl Kuhna	Cocos nucifera Linn. Oil
90.	Roghan-e-Nāranj	Citru aurantium Limm. Oil
91.	Roghan-e-Nārdīn	Nardostachys jatamansi (D. Don) DC. oil
92.	Roghan-e-Nargis	Narcissus tazetta oil
93.	Roghan-e-Nīlofar	<i>Nymphaea alba</i> Linn. Oil
94.	Roghan-e-Pista	Pistacia vera oil
95.	Roghan-e-Qanfaz	Oil derived from hedgehog
96.	Roghan-e-Qatha al-Ḥumār	Ecballium elaterium (L.) A.Rich. oil

97.	Roghan-e-Qurtum	Carthamus tinctorius Linn, oil
98.	Roghan-e-Qust	Saussurea lappa oil
99.	Roghan-e-Şanobar	Pinus roxburghii Sarg. oil
100.	Roghan-e-Sarson	Brassica rapa L. oil
101.	Roghan-e-Sīr	Allium sativum Linn. oil
102.	Roghan-e-Shibat	Anethum graveolens oil
103.	Roghan-e-Sumbul	Nardostachys jatamansi (D.Don.) DC. oil
104.	Roghan-e-Surkh	(A polyherbal Unani formulation)
105.	Roghan-e-Tukhm Injīr	Ficus carica Linn. Seed oil
106.	Roghan-e-Turb	Raphanus raphanistrum sub. sp. (L.) Domin oil
107.	Roghan-e-Utraj	Citrus medica oil
108.	Roghan-e-Yāsmīn	Jasminum arborescens Roxb. oil
109.	Roghan-e-Zanbaq	Jasminum sambac oil
110.	Sandal Safed	Santalum album Linn.
111.	Satāwar	Asparagus racemosus Willd.
112.	Shīḩ	Artemisia maritima Herb.
113.	Shonīz / Roghan-e-Shonīz	Nigella sativa (roghan=oil)
114.	Shorah	Saltpetre
115.	Sosan / Beikh-e-Sosan / Roghan-e- Sosan	Iris ensata Thunb. (beikh=root; roghan=oil)
116.	Sudāb / Roghan-e-Sudāb	Ruta graveolens L. (roghan=oil)
117.	Suk	<i>'Usāra-e-Āmlah</i> (Extract of <i>Emblica officinalis</i> Gaertn)
118.	Suranjān talkh	Colchicum luteum Baker.
119.	Ţabāshīr	Bambusa bambos (L.) Voss.
120.	Ushnān	Saltwort
121.	Waj	Acorus calamus Linn.
122.	Za'frān	Crocus sativus
123.	Zayt-al-infāq	Oil derived from unripe olives
124.	Z anja $b\bar{\imath}l$	Zingiber officinalis Linn. root
125.	Zaranbād	Curcuma zedoaria Rosc.
126.	Zūfa / Sawf-e-zūfa	Hyssopus officinalis Linn. (sawf=camlet)

Conclusion

Dalk is an age-old therapy which has been popular in Unani medicine since its very inception. In the recent years, it is gaining immense popularity due to the simplicity and ease of application, comforting feeling and holistic nature. Dalk may hold the promised cure for many diseases associated with, or aggravated by stress and improper lifestyle. The medicines prescribed for dalk in the ancient Unani texts are numerous, and derived after years of experience, many of which are being used by Unani practitioners. A number of clinical trials have proved the efficacy of the therapy on modern parameters. In that aspect, dalk has the potential of becoming an independent science for management of a number of disorders, where conventional methods have proved futile, or

carry adverse effects. *Dalk* is in essence a safe therapy requiring minimal use of technology, and also allows considerable flexibility for adjusting to individual needs [8].

This review is done with a view to explore and preserve the traditional Unani medicine, to pave the way for future clinical research. It was observed that the method of *dalk* with respect to the duration, strength and frequency has not been explained in depth in most diseases in classical textbooks. However, the general guidelines for *dalk* have been explained adequately, and the same may be followed for the purpose. Nevertheless, there is a need to further explore the field and develop standard treatment guidelines, especially keeping in mind the *miz?j* (temperament) theory, and base our prescriptions on the same.

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