

Unani Concept and Management of Gout (Niqras)

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Abstract

Gout is one of the oldest known diseases and described in Unani system of medicine under the term Niqras. Galen (Jalinoos) and Rhaze's (Zakariya Rhazi, 860-923 A.D), clarify that Arthritis (Wajaul Mafasil), Sciatica (Irq-un-Nisa) and Gout (Niqras) fit in the same group and their different names denote the different areas of affliction. Unani system of medicine is based upon Hippocrate's theory of four Humors (Akhlat). According to Unani hypothesis, the pathological changes in the joints are caused mostly by derangement of humoural temperament and accumulation of Morbid material (Mawad-e-Fasida) in the joint spaces. Renowned Unani Physician Ibn-Hubal said that Niqras affect mainly those peoples who have excess of Humors (Akhlat) and their body is unable to excrete them, then these humors retain inside the body and accumulate around the joints and other tissue of body. These humors trigger an inflammatory response leading to acute flare characterized by a rapid onset of pain, swelling, warmth, and redness in affected joints. The objective of present study was to ascertain the Unani concept described in Unani classical literatures regarding various causes, symptoms and management of this common arthritic disorder by Renowned Unani Physicians with an aim to spread the knowledge for preventive measures, home remedies, to get relief from the disease and the management of gout by Unani compound formulations, which are not only easily available but also have no side effect on human body. In this regard, we may conclude that spread of knowledge of enormous effective Unani components and general principles of treatment, which are being used by Unani physicians since ancient times, shall be extremely effective in the management of this musculoskeletal disorder.

Keywords: Akhlat; Arthritis; Musculoskeletal Disorder; Niqras; Unani System of Medicines

Introduction

Niqras is an Arabic term and in most of the Arabic to English dictionaries the meaning of this word is given as "Gout" and "Arthritis". According to Ibn-Hubal (1122 - 1233 A.D) and Hakeem Mohd Hasan Qurshi, the word Niqras is derived from the term 'Naqoroos' which means 'the joint of great toe'. Since this disease classically affects the first metatarsophalangeal joint, hence it has been given this name and majority of the scholars have the same opinion with this assertion [1-4].

Niqras is one of the oldest known and most common forms of inflammatory arthritis. It was known among the Egyptians as Podagra (foot pain), typically of big toe, as early as 2640 BC and at present understood as uric acid arthropathy [5,6]. Hippocrates (Buqrat, 460-377B.C), the father of medicine, depicted Niqras as "the disease of kings" due to its alliance with a rich diet and wealthy men who overindulged in food and drinks [5,7]. Hippocrates's significant clinical perceptions in relation of Niqras are preserved in the form of aphorism, which are as true today as they were 2500 years ago [5,6,8-10] (Table 1).

- Eunuchs do not take the gout, nor become bald.
- Women do not take the gout until their menses be stopped.
- Young men do not get the gout until they indulge in sexual intercourse.
- Gouty inflammation subsides within forty days.
- Incidence of gout amongst people more during spring and autumn.

Table 1: Hippocrates's aphorism regarding gout.

Majority of Unani scholars defined this disease primarily in the context of joint disorders like arthritis and sciatica. Some valuable views of famous Unani physicians regarding the Niqras are as follows: According to Avicenna (Ibn Sina, 980- 1037A.D) "Niqras resembles with other types of Arthritis (Waja-ul-Mafasil) and it sometimes originates from the toes, particularly the great toe, sometimes from ankle, sometimes from the plantar side of the foot or from the borders of the foot and affects the entire body so much so that viscera too get affected" [2,4].

Ibn-Hubal (1122 - 1233 A.D), in his famous book "Kitab Al Mukhtarat Fit Tibb" said that Niqras is a type of Wajaul Mafasil and commonly involve both foots. According to him, Niqras especially affect great toe joint and due to which it become red, inflamed and painful. He also said that Niqras affect those persons more who have excess of Humors (Akhlat) and body is unable to excrete, then due to retention, it reaches towards joints and other tissues of body [1].

According to Masih-ul-Mulk Hakeem Ajmal Khan (1868 - 1927 A.D) "pain of all the joints of body is called Waja-ul-Mafasil and pain of great toes of feet is called Niqras. According to Ajmal khan pain of Niqras mainly involved great toe of right foot but sometime both the foots are also involved [11].

Classification of Niqras

Keeping in view the descriptions given by Unani Scholars Niqras can be classified as follows [1,2,4,12]:

1. On the basis of Humors (Akhlat) involved

- a. Single humors dominance
 - i. Damwi (Sanguineous)
 - ii. Safrawi (Bilious)
 - iii. Balghami (Phlegmatic)
 - iv. Saudavi (Melancholic)
- b. Combined humors dominance
 - i. Dam-e-Safrawi
 - ii. Dam-e-Balghami

2. On the basis of severity and duration

- a. Haad (Acute)
- b. Muzmin (chronic)

3. On the basis of organs involved

- a. Mufasili (Articular)
- b. Hashwi (visceral)

Some Unani scholars also described Niqras Reehi [12].

Etiology

Majority of the Unani scholars have considered the basic cause of Niqras to the following factors:

- Sual' mizaj sazij (Simple imbalance of temperament) [1,11,12].
- Sual' mizaj maddi (Imbalance of temperament due to change in matter): It is the main etiological factor. It is an abnormal temperament where homeostasis of body is disturbed due to alteration in the specific ratio of Kmmiyat and Kayfiyat (Quantitative and Qualitative changes) of akhlat (maddah) locally or generally [1,10,12].
- Weakness of joints, which result in accumulation of causative matter (maddah-e-Niqras) in the joint and thus leading to the development of Niqras [1,8,10].
- The important predisposing factors responsible for the development of Niqras are excessive eating, excessive drinking, excessive intercourse particularly just after meals, sedentary life style, heredity, luxurious living and lack of exercise [1,9,10,12].
- Some physicians have attributed the Reeh (flatulent matter), and lead poisoning as a causative factors of Niqras [1,11,12].

Etiopathogenesis

The Unani System of Medicine is based on the Hippocratic doctrine of four humors (Akhlat) i.e. Blood (Dam), Phlegm (Balgham), Bile (Safra) and Black bile (Sauda). A proper balance of Akhlat within the body is essential to maintain optimum health. According to Unani System of Medicine, diseases are due to the disproportionate distribution of humors or Akhlat inside the body. These humors, which are out of proportion (quantity and quality), collect in various parts of body, at times producing inflammation, and are often root cause in the origin and development of a particular illness, one of them being Niqras. In case of Niqras, the humors collect in the joint, thereby leading to pain, swelling and other articular damage [13,14]. According to Hakeem Kabeeruddin gouty matter (noxious matter causing gout/maddah-e-Niqras) is basically a byproduct of liver metabolism, and it look likes the urinary calculus to a large extent. Niqras is one of those disease, which is related to the hepatic and tissue metabolism (hazm-e-kabidi or hazm-e-chaharum) [2,15].

According to most of the Unani scholars humors which is associated with Niqras is mostly phlegm (balgham), which may be either raw phlegm (balgham kham) or it may be admixed with serous humor (mirrah). The other humors are less likely to cause this disease. As such, when propulsive power of the body (Quwwat-e-Dafiyah) tries to expel this matter, a part of it still remain in the body, which accumulate at various anatomical locations (joints, kidney etc.) and produce various clinical features. Simultaneously, the blood and urine level of this substance are also raised [16].

Avicenna (Ibn-e-Sina) in his famous book "Alqanoon fit Tibb" said that, the matter liable for Niqras may be blood (Dam) alone or blood mixed with phlegm (Dam-e-balghami), or blood mixed with yellow bile (Dam-e-safrawi), or blood mixed with black bile (Dam-e-saudawi) or it may be phlegm (balgham) alone or raw phlegm (balgham kham) alone or serous humor (mirrah) alone or a mixture of humors. But in majority of cases this matter is of serous phlegmatic type (balgham-e-mirrah) [17].

Allama Qarshi has explained the pathogenesis of this disease in detail in his well-known book "Moalijat-e-Nafeesi". According to Qarshi pure phlegm (balgham-e-khalis) cannot reach the joints due to its viscosity and it can do so only after the admixture of serous humors (mirrah) with it. Raw phlegm (balgham-e-kham) although does not flow much towards the joint spaces, it still is the most common cause of arthritis comparatively to the other three humors. According to Qarshi other humors are much less likely to cause this affliction due to their specific properties. Qarshi said that blood (Dam) is a rare cause of Niqras because there are not many blood vessels around the joints. Yellow bile (Safra) due to its irritant effect or less viscosity will get expelled from the adjacent possible route and a smaller amount reaches the joints. Black bile (Sauda) is a very rare cause due to its high viscosity [18].

According to Nuh Al Qamri the author of famous book “Ghina Muna” Niqras occur due to dissemination of that matter towards the extremities, which is repulsed by the vital organs (due to strong power) and accepted by extremities (due to their weakness). The matter is formed as a result of disturbed Quwwat-e-Hazimah (Digestive Power) due to dysfunctioning of liver [8]. Rhazi’s opinion is that a humor responsible for gout is- raw phlegm (balgham-e-kham), which is viscous and similar to pus to some degree and if it persist for long duration it may leads to tahajjur of joints [9,12]. According to Qusta Bin Luqa, humors responsible for Niqras are mirrah safra and balgham luzj [12].

	Blood (Dam)				Phlegm (Balgham)			Bile (Safra)		Black bile (Sauda)
	Khalis dam	Dam-e-balghami	Dam-e-safrawi	Dam-e-saudawi	Luzj	Kham	Mirrah (serous)	Khalis	Mirrah	
Ibn-e-Sina	Y	Y	Y	Y		Y				
Rhazi						Y				
Allama Qarshi	Y (rare)					Y	Y	Y (Rare)		Y (Rare)
Qusta Bin Luqa					Y				Y	

Table 2: The causative humors of niqras according to renowned Unani physicians.

Y= Possible Causative Humors.

Clinical features

The clinical manifestation (symptoms and sign) of niqris depend upon the dominant humors (akhlat/noxious matter/maddah-e-niqras). On the basis of responsible humors (maddah-e-niqras), four types are recognized with different clinical features.

Su’al Mizaj Sazij (Simple imbalance of temperament)

This type of niqris is very rare but if occurs, cure very fast and associated with pain of low intensity, absence of heaviness, swelling, and humoral features over the affected part are the classical symptoms [1,10,15].

Su’al Mizaj Maddi Mufrad (Single humoral imbalance)

When the causative matter of niqris is sanguineous (damvi), the skin over the affected part is red in colour, the swelling is prominent, associated with pain and tenderness. Patient feels comfort by the use of cold things and gets trouble from the hot things.

In case of bilious (safrawi) matter, redness is less marked over the affected part compared to damvi and there is yellowish discoloration of skin around the affected part. Swelling is less, but there is warmness, pain of low intense and itching over the affected part. Application of cold things is beneficial to the patient whereas warm things may aggravate the symptoms.

When it is caused by phlegmatic (balghami) matter, the skin of the affected area may either be normal or pale or whitish in colour. Swelling is soft, pain of low grade but present constantly, absence of warmth are the classical features. Patients get benefits by the use of hot things and cold things make worse the condition.

In melancholic (saudawi) type, the skin of affected part is dry without laxity, lustre or warmth, pain is mild, swelling is hard in consistency and the colour of the skin is either slightly black or with a bluish tinge [1,4,8,9,10,19].

Su'al Mizaj Maddi Murakkab (Combined humoral imbalance)

1. When it is caused by combined impairment of blood and yellow bile (dam and safra), the patient is young having a flushy face, prominent blood vessels and like to eat hot and spicy food, passes reddish urine, and symptoms are aggravated by using hot things, relieved by using cold things and by letting out of blood.
2. When it is caused by combined impairment of phlegm and blood (balgham and dam), the patient is elderly having a dark complexion, obese with sluggish activities. In these patients H/O sedentary lifestyle, drinking of excess water, excessive salivation, bathing, indulging in intercourse just after taking food and consuming of cold foods in excess are positive. Urine of the patient is white with increased viscosity. Pulse is weak- soft-non continued (za'if layin mutafawit). Patient feel benefits by adopting the hot measures (harr tadabeer) [12,19].

Reeh (Pneuma/Flatulant Matter)

In this type of niqris, pain is shifting in nature, marked distension, less swelling are the classical symptoms [1].

Complications

According to Ibn Sina, the most important complication of niqris is inflammation or hypertrophy of the covering of testis. Jalinoos comments that there is hypertrophy or increase in size of testis and the joints become frozen (mutahajjir) [12].

Renal complications

Renal damage is the most common extra skeletal complication. Niqras produces functional disturbance and structural changes in the kidneys, which lead to speedy death [3,20].

Cardiovascular complications: According to Unani Physician main CVS complications are - Palpitation (Khafqaan), Atherosclerosis (Tasallub-e-sharain), Cardiomegaly [3].

Respiratory complication: Pneumonia [3].

Skin complications: Urticaria (Shar'a), Dermatitis (Warm-e-jild), Eczema (Chajan) [3].

GIT complications: Intestinal colic (Kulunj), Enteritis (Warm-e-am'a), Hepatitis (Warm-e-jigar) [3].

Neuronal complications: Headache, Epilepsy, Paralysis [3].

Differential diagnosis

Ismail jurjani had recommended the differential diagnosis among three diseases namely Gout (Niqras), Waja-ul-mafasil (Arthritis), and Reeh ul'shoka and stating that the matter of Niqras, Waja-ul-mafasil and Reeh ul'shoka accumulates in the muscles, khila of joints (joint space) and substance of bone respectively [12].

Management

Preventive measures

The renowned Unani physicians recommended that- excessive coitus, alcohol, bath, exercise, anger are the things to be avoided by gouty patients [21]. The main risk factors associated with an increased risk of developing gout are shows in table 3 and should be avoided in gout [1,8,12]. Some physicians emphasized that alteration in diet according to quality and quantity and moderate exercise postpone the development of gout [12]. According to Nooh bin Mansoor Qamri "Gouty patients avoid intake of spicy food, meat, alcohol in excess

and augment intake of water and diuretics". Avicenna (Ibn Sina, 980-1037), in his famous book "Canon of Medicine" described that meat consumption strictly avoided by gouty patients. Rhazes (Al-Rhazi, 860-923), also suggests "Avoid intake of alcohol, sweetened food, and meat in excess and continuous use of diuretics suspend the development of gout" [1,8,12].

Risk factors
• Excessive eating (ghaleez ghiza) e.g. meat
• Drinking alcohol
• Lack of exercise
• Passing a high profile-life
• Aaraz-e-nafsani e.g. anxiety, tension
• Low physical activity
• Indigestion,
• Sleeping on empty stomach
• Excessive sexual intercourse especially on full stomach
• Excessive sugar intake

Table 3: Risk factors of Niqras.

Conservative treatment

According to Ali Ibn-e-Zain "Walking bare-footed during summer seasons is beneficial to the gouty patients" [8]. Hippocrates, stated that "Nutool of cold water on feet is favorable to the gouty patients" [12]. Dioscrides said that "Nutool of Gandhak water is beneficial for gout and Hammam-e-Yabis is very useful for gouty patients" [12].

Home remedies to get relief from Niqras [3,4,9,12,18,22-24]:

- A person with niqras can reduce swelling by drinking plenty of water.
- Using ice packs to reduce swelling.
- Increase fish intake.
- Consume tomatoes, green-leafy vegetables, cabbage, preferably in raw form or lightly steamed.
- Drinking coffee.
- Drinking cherries juice. Cherry juice high in vitamin C and increase excretion of uric acid in urine.
- Fenugreek seeds- soak 1 tsf fenugreek seeds in ½ cup water overnight and drink the water in the morning and chew the soaked seeds.
- Take warm water with apple cider vinegar, lemon juice, and turmeric powder.
- Swallow 1 pod of garlic on daily basis cure the gout from its root.
- Take ½ tsf ajwain and 1 inch slice of ginger; boil with a cup of water. Strain the decoction and consume half of it in the morning and other half in evening.
- Soak some coriander seeds in water overnight and drink the water, after straining it, on an empty stomach.
- Massaging the warm castor oil over the affected area breakdown the toxic deposit and relieving redness and pain.

General principles of treatment (Usool-e-Ilaj)

The general line of treatment (Usool-e-Ilaj) of gout described by most of the Unani scholars is as follows:

1. Modification of So'e Mizaj (unbalanced temperament) by appropriated measures and cautious use of drugs [10,17].
2. The causative humors and noxious matter should be expelled from the body by the use of diaphoretics (Moarriqat), purgatives (Mushilaat), and emetics (Muqiyat). In case of safravi madda, purgation (Ishal) is valuable and in balghami madda, emesis (Qay) is valuable while in case of damvi madda, venesection (fasd) is beneficial [2,4,8-10,12,17].
3. Some of Unani scholars suggest the use of Diuretics (Mudirat) in treatment of Niqris [12].
4. Use of anti-inflammatory (Mohallil-e-auram) drugs both in systemic and local forms [4,9,10].
5. Munzij Mushil therapy according to the humour involved [8].

According to Unani System of Medicine, the therapeutic program is planned after identification of the humour (khilt), which is most likely liable for the disease. In most of the cases of gout, the causative humour is phlegm (balgham) and hence adopted treatment is removal of excessive phlegm from the particular joints and body in general. Various drugs which are purgative of phlegm (Mushil-e-balgham) are used after proper coction (Nuzj) of the humour. Especially, Suranjan is used in the whole time course of treatment [2,8-10].

Rhazi stated that management of gout can be achieved if these ten procedures are followed:

- i) Abstinence from restricted diet.
- ii) Compliance with fluid and dietary regimens regarding the emphasis on certain food types and drinks.
- iii) Administration of laxatives.
- iv) Stimulation of emesis.
- v) Bloodletting.
- vi) Application of water to the feet.
- vii) Treatment with salves and poultices.
- viii) Steam baths.
- ix) Taking preventive measures to avoid recurrence of gouty attacks.
- x) Prompt management of incipient gout using counter-acting drugs and analgesics [25,26].

Prognosis

Hakeem Azam Khan in "Ikseer-e-Azam" mentioned that Niqras safrawi may leads to sudden death [4]. According to Avicenna and Ali bin-Abbas Majoosi, if the matter responsible for niqras is not too viscid, the disease subsides within 40 days [10]. Galen opinion is that if the patient passes viscid urine then the prognosis is good [8].

Unani pharmacopoeial formulation used in management of Niqras (Gout) [3,8,12,112,27,28]:

- i) Majoon-e-surjan
- ii) Habb-e-surjan
- iii) Safoof-e-surjan
- iv) Habb-e-surjan kabeer
- v) Habb-e-niqras
- vi) Habb-e-sibr
- vii) Majoon-e-choob chini

- viii) Roghan-e-kalkalanj
- ix) Roghan-e-badam shereen
- x) Roghan-e-waja-ul-mafasil
- xi) Roghan-e-afyoon

Conclusion

Gout is a common joints problem that most of the people have to face in their lives. Because of the known side effects of the conventional medicines, the Unani drugs and its compound formulations can be used as excellent alternative for treatment of the disease. Unani drugs have long history of efficiency in management of niqras without causing any side effect on the human body. This paper focuses on different causes of niqras, its diagnosis and management by Unani system of medicines and we may conclude that widen of the knowledge of copious storage of Unani components and general principles of treatment of the disease, used by Unani physicians since ancient times, shall be very effective in the handling of this disease.

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