Niqras (Gouty arthritis)

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Abstract
Gout (Niqras) is a common metabolic disorder which causes inflammatory arthritis generally presenting as monoarthritis. It is a true crystal deposition disease caused by formation of monosodium urate crystals hinge joints and other tissues. Unani classical text provides a comprehensive detail on the concept of Niqras. According to Ibn Sina Niqras is a type of pain which starts sometimes from fingers, toe, and sometimes heel. Owing to dreadful complications of Gout and lack of safe and effective drug for its management, it becomes a thrust area for research, in every field of medical science. Unani medicine has a variety of safe and effective drugs for the management of Niqras. And Unani medicine claims have been successful in treating this disease since a long time without any unwanted effects.

Keywords: Gout, Niqras, Unani medicine

Introduction
Gout is a disorder of uric acid metabolism and represents a heterogeneous group of diseases that include:

- An elevated serum urate concentration
- Recurrent attacks of acute arthritis in which Monosodium Urate (MSU) crystals are seen in synovial fluid
- Aggregates of MSU crystals (tophi) are deposited in & around joints leading to deformity & crippling
- Renal disease involving glomerular, tubular, interstitial tissue & blood vessels
- Uric acid nephrolithiasis [10].

Aim and Objective
To propagate the safety and efficacy of unani medicine in the disease of Gout (Niqras).

Review of Literature
Classification of gout
- Primary gout: Due to abnormality of uric acid production and metabolism
- Secondary gout: Excess uric acid production due to excessive breakdown of nuclei secondary to some other disease

Causes
Why does gout develop?

Hyperuricemia
The underlying problem is a build-up of urate, a purine breakdown product. It may be due to increase in the production of urate as in purine metabolic disorder or a decrease in its clearance as in kidney disorder, both of which might lead to increase in the levels of serum uric acid/urate in the blood leading to condition called Hyperuricemia, clinically stated as An elevated level of urate in the blood > 7mg/dl in males and >6.5mg/dl in females.

Risk factors of Hyperuricemia
Gout is more common in men, the sex ratio being 20:1 and the mean age at onset 40 years; in women, the onset of gout is postmenopausal [11]. Alcoholism, obesity, hypertension, dyslipidemia, diabetes mellitus, lithiasis, renal failure, and medication use (thiazide diuretics, cyclosporine, and low-dose aspirin) are other risk factors associated with hyperuricemia [12].
Stages of Gout

Acute gout (Niqras had)
Acute monoarthritis results from an acute attack. Severe pain, erythema, and swelling are the characteristic features of the disease. The most commonly affected joint is the first metatarsophalangeal joint (podagra), followed by knee, ankle/metatarsal, wrist, and fingers. Polyarticular gout is less common but can occur, in those individuals who had repeated disease flares. The risk for gout is directly proportional with the degree of hyperuricemia. Acute gout is self-limited and symptoms typically resolve over the course of days to weeks [10].

Intercritical gout
Patients of gout are usually asymptomatic in between sporadic episodes of acute arthritis. The management of patients with intercritical gout focuses on the prevention.

Chronic tophaceous gout (Niqras muzmin)
Large deposits of uric acid occur within joints or in the soft tissues, particularly around the pinna of ear, in chronic tophaceous gout. In these patients, there are substantial X-ray changes, calcification of urate deposits with soft tissue swelling and even erosions of phalangeal bone [14].

Investigations
Serum uric acid is the basic parameter in Gout evaluation. Apart from this various other investigations are helpful in detecting the stages of gout. Musculoskeletal ultrasonography (MSK) is very helpful in the early stages of the disease. MSK is a non-invasive technique which shows where the crystals have been deposited in the joint [13]. Joint X-ray is helpful in later stages. Ultrasound-guided synovial biopsy (UGSB) is a minimally-invasive procedure which allows quality synovial tissue for retrieval.

Unani concept
Hippocrates (Buqrat, 460-377B.C), the father of medicine, called nqras the “Disease of King ‘for its association with wealthy men who overindulged in food and drink. According to the renowned Unani physician, Buqrat (Hippocrates), Nqiars is a joint disease which is caused due to excess of one of the four humors, which under certain circumstances, drop or flow into a joint causing pain and inflammation [1].

Unani etiopathogenesis
The active cause of Nqras is Sue Mizaj and Raddi Mawad (morbid materials) [5]. Nqras (Gout) is produced when the madda falls (spells) towards the lower extremities, expelled by the Vital Faculties (Aazae Raisa) of the body towards these extremities, which are not able to expel these matters [1], According to most of the Unani scholars humors which is associated with Nqras is mostly phlegm (balgham), which may be either raw phlegm (balghm 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 (Qwwat-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 [14]. Avicenna (Ibn-e-Sina) in his famous book “Al qanoon fit Tibb” said that, the matter liable for Nqras maybe blood (Dam) alone or blood mixed with phlegm (Dam-e-balghami), or blood mixed wih 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) [5]. Zakariya Rhazi blames raw phlegm (kham balgham) as a causative humour of Nqras [9]. According to Hakeem Kabeeruddin gouty matter (noxious matter causing gout/maddah-e-Nqras) is basically a byproduct of liver metabolism, and it look likes the urinary calculus to a large extent. Nqras is one of those disease, which is related to the hepatic and tissue metabolism (hazm-e-kabidi or hazm-e-chaharum) [7] Ibn-Hubal declared that gout affect those persons more who have excess of humors (Akhat) and their body is unable to excrete, then due to retention, it reaches towards joints and other tissues of body [11].

Treatment modalities
Owing to dreadful complications of Gout and lack of safe and effective drug for its management, it becomes a thrust area for research, in every field of medical science. The researchers of different systems of medicine are continuously concentrating themselves for the development of safe and effective drug for the management of Gout. As far as the Unani system of medicine is concerned, Nqras is being treated since Greco-Arab period. Unani physicians claim to possess many safe and effective drugs for the management of Nqras.

Usool e ilaj (Line of Treatment)
Treatment would involve:
Ilaj bil ghiza (Dieto therapy)
Dietary restrictions
1. Red meat
2. High sugar intake
3. High purine food intake eg fishes like Tuna sardines.
4. Alcohol consumption is a particularly common factor in promoting hyperuricemia by increasing urate production.
Dietary recommendations
1. Estrogen rich foods like nuts, almonds which are known to possess uricosuric action [10].
2. Antioxidants like cherries and black berries. Cherry being high in vitamin C helps in increase excretion of uric acid in urine.
Ilaj bid dawa (Pharmacotherapy)
What can be done for the condition of an acute gout attack? During a acute or early phase doctors prescribe Colchicine, NSAIDs and steroids to control pain and inflammation. We all are well versed with the side effects of NSAIDs and steroids. But it is interesting to know that Colchicine is nothing but an alkaloid of the plant Colchicum autumnale or commonly known as Suranjan. Due to the effectiveness of Suranjan, it has been included as an Anti Gout medicine in Allopathic medicine [10]. Suranjan shireen acts as an anti inflammatory agent and anti urate by decreasing swelling and lessening the build up of uric acid crystals that cause pain in the affected joint. Apart from this Unani medicine also boasts of many anti inflammatory and analgesic agents
like bozdekan, triphala, neem etc which would help in this scenario.

Drug therapy would involve cleansing the blood with uricosuric drugs. Habb-e-suranjan and Allopurinol both were significantly effective in resolving the symptoms and signs of gouty arthritis in Hilal Akhtar et.al [20], both have significant effect on reducing serum uric acid level. Allopurinol works by blocking the production of uric acid and prevents the recurrence of gouty attacks. To combat gout various new drugs were discovered between 1980 &amp; 1990 but allopurinol (Xanthine-oxidase inhibitors) remains the widely used anti-hyperuricaemic drug [5, 32], but it’s long term usage may cause gastric irritation, diarrhea, skin rashes, fever, hepatic and renal dysfunction, eosinophilia, jaundice and severe liver necrosis, with 20-25% mortality [18, 19].

Unani medicine has variety drugs which are uricosuric in action. Eg Giloy, Alsi, Methi etc. Unani medicine focusses on immunomodulator drugs to strengthen the immunity and metabolism with drugs like Asgand. For Tanqiah madda: Hab Muntin, Hab Sheetraj, Hab Suranjan are used in murakkab drugs. For Tadeel Mizaj and to Prevent Madda from Coming into the Joints: Majoon Hurmas or Tiryaque Kabir are used.

Ilaj bid tadbeer (Regimental therapy)

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) or any other humour and hence adopted treatment is removal of dominant humour. Munzij Mushil therapy to cleanse the body from morbid matter is the most beneficial. Various drugs which are purgative of phlegm (Mushil-e-balgham) are used after proper coction (Nuuj) of the humour. Effective usages of drugs like Suranjan are beneficial in the whole time course of treatment. Apart from this Hijama therapy has analgesic and anti-inflammatory effect on inflammatory joints in gout. It helps to align the blood flow of skin and remove impure blood containing causative pathological substances from the diseased part. [9] Local application therapies of Nutool and zimaad are used as well in gout.

Conclusion

Niqras is a humoral disease occurring as a result of imbalance in the quality and quantity of one of the four humours and results in severe pain and inflammation in joints. The known side effects of the conventional medicines, makes the Unani system of medicine, its drugs, its compound formulations and its regiments a must to be propagated as an excellent treatment for the disease. Unani drugs have proven to be efficient in management of nigras without causing any side effect on the human body. This paper focuses on the wealth of Unani medicine in that arena and how terrific the response of a single unani medicine can be. It may be concluded that wide knowledge of bountiful storage of Unani principles of treatment of the disease, shall be very effective in the management of this disease.

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