

UNANI SYSTEM OF MEDICINE- INTRODUCTION AND CHALLENGES

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The Unani System of Medicine pioneered in Greece and was developed by Arabs into an elaborate medical science based on the frame work of the teaching of Buqrat (Hippocrates) and Jalinoos (Galen). Since that time Unani Medicine has been known as Greco-Arab Medicine. This system is based on Hippocratic theory of four humours viz. blood, phlegm, yellow bile and black bile, and the four qualities of states of living human body like hot, cold, moist and dry. They are represented as earth, water, fire and air, the Greek ideas were put by Arabian physician as seven principles (Umoor-e-Tabbiya) and included, element (Arkan), temperament (Mizaj), humours (Akhlal), organs (Aaza), spirit (Arwah), faculties (Qowa) and functions (Afaal). In this system it is believed that, these principles are responsible for the body constitution and its health, as well as, diseased conditions (1).

The World Health Organization (WHO) has recognized the Unani System of Medicine (USM) as an alternative system to cater the health care needs of human population. Alternative medicine is being practiced worldwide.

Unani is one of the most well known traditional medicine systems and draws on the ancient traditional systems of medicine of China, Egypt, India, Iraq, Persia

and Syria. It is also called Arab medicine. Unani is still popular in many Arab and East Asian countries. In fact Unani medicine and herbal products are gradually more being used in many countries where modern medicine is easily available. India has accepted it as one of the alternative health care system and has given it official status.

Practices of traditional medicine vary greatly with country and region, as they are influenced by factors such as culture, history, personal attitudes and philosophy. In many cases, the theory and application of traditional medicine are quite different from those of conventional medicine. Based on the therapies, traditional medicine can be categorized as medication and non-medication.

Traditional medication involves the use of herbal medicines, animal parts and minerals. Non medication involves various techniques, primarily without the use of medication. They include, for example, acupuncture and related techniques, chiropractic, osteopathy, manual therapies, qigong, yoga, and other physical, mental, regimental, spiritual and mind-body therapies.

Situation as regards the use of traditional medicine

Traditional medicine is widely and increasingly being used in both developing and developed countries. Up to 80% of the population in Africa and 65% in India depend on traditional medicine to help meet their health

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care needs. Elsewhere, in Asia and in Latin America, historical circumstances and cultural beliefs mean that populations continue to use traditional medicine. In many developed countries, certain complementary and alternative medicine therapies are popular; the percentage of the population that has used complementary and alternative medicine at least once is 48% in Australia, 70% in Canada, 70% in USA, 40% in Belgium and 49% in France. However, comprehensive and reliable data and information about the global use of traditional medicine are not available (2).

The disease state is caused by the derangement of temperament or humor and retention of health is carried out by applying the various measures to render balance in the polar dimensions of six essential prerequisites of health. The applied aspect of USM deals with the various measures to maintain or restore health (3, 4).

Sources of drugs

The principal sources of drugs in USM are,

1. Plant origin drugs
2. Animal origin drugs
3. Mineral origin drugs (5, 6)

Crude drugs when used one at a time is called *Ilaj bil Mufrad* (treatment by single drug). When two or more than two drugs are combined together, it is called *Ilaj bil Murakkabat* (treatment by compound drugs) (7). Various drug formulations are used in Unani medicine. Dosage forms are used for (8)

1. Easy access
2. Enhance or decrease rate of absorption
3. Preservation
4. To increase life of drugs
5. To use in situation where single drug therapy can not yield the desired results
6. To moderate the potency/efficacy of a drugs
7. To detoxify of a drugs
8. To eliminate any side effects of a drug
9. To decrease dosage form of drug

Various poly-herbal formulations are manufactured with the help of the process as described by the reference books called *The Quarabadeen* (pharmacopeias)

which has got information related to the number of herbs, quantity used, and preparation of bases and powder size of each constituent. Along with these standards, the dosage and use has been enumerated. The standard preparation usually is used fresh and the time period of its use is generally given. Certain preparations are to be stored up to 6 months so as to stabilize them and the practitioners can then only use them.

Type of compound Drug Formulations used in Unani System of Medicine (9):

1. Solid formulations: Powder, tablets and pills etc
2. Semi Solid formulations: Electuaries, Aperients, *Jwarishat*, *Khamerajat* etc.
3. Liquid formulations: Syrups, decoctions, linctuses, eye and nasal drops etc
4. Gaseous formulations: Snuffs, Shamoom, *notukh*, *lakhlakha* etc.

Standards used in compounding of drugs

The official formulary of USM has enumerated certain general principles for compounding various drug preparations. They can be categorized into two parts.

1. Principles related to routine process: it includes the basic hygiene of pharmacy unit. It describes how to enter into a pharmacy unit and how to handle various instruments of the unit to ensure cleanness.

2. Specific process: these include: Process of powdering a drug to the required particle size. Concept of *Sehque Baleegh* (very fine powder) has been described in every Unani pharmacopoeia in detailed and how to identify whether drug has been powdered to required fineness

3. *Qiwaam* requirement: base for Unani formulation is honey, sugar, vinegar or alcohol. Required viscosity (*Qiwaam*) has to be developed in the base substrate in which the ingredients are to be mixed. Unani pharmacopoeia has described various methods to identify the required level of *qiwaam* of the base substrate.

4. Principles of good storage: different methods of storage mentioned like air tight container closer system, glassware, plastic containers and china clay for storage of some medicines.

5. Empirical shelf life of drug formulations: Unani pharmacopoeias have mentioned the shelf life of various formulations, which is empirical. Keen observation and use of these formulations from centuries has made it possible to evaluate the life of formulation for its use. On the basis of authority, the expiry dates of various drugs have been mentioned in classical literatures of USM (10).

It may serve as an example.

1. Powders: not more than one months (10)
2. Tiryaque akbar: Upto thirty years and more (11)
3. Tiryaque faruq: ten to twenty years
4. Barshasha has retain their potency for five years (12).

Present challenges for Unani medicine

1. Validation of Empirical claims

Classical Unani practitioners mentioned a lot from their experience regarding the identification of crude drugs, their authentication methods, and about their clinical efficacy. They also mentioned the method of compound drug formulations, and their possible expirations dates. The present challenge for Unani scholars is to validate these claims applying scientific methodologies.

2. Usage of technology

The era of classical Unani system dates back till the last two centuries, With the use of technology prevailing in those days Unani physicians and scholars left no stone unturned to make this system empirical, systematic and rational one. The measure breakthrough was that it tried to solve concrete, physical and testable research statements. These statements formed the core knowledge base. They used keen observation, experience of trial, upon trial of various drugs in regard to its safety, efficacy and quality control.

Moreover ancient and medieval methods of enquiry based on logic to infer from the outcomes. Lack of precise instruments posed a challenge to further the progress in this front. Keen observation made this vul-

nerable to a number of interpretations which equally qualified as a truth statement. It needed self-correcting methods to avert controversies. Human history took another two centuries to develop these methods now so called scientific methods. Sciences of this modern age is quite newer and sophisticated, like claims of expiration dates of Unani formulations was based only on organoleptic characteristics e.g. colour, odour, taste and consistency, along with these in modern pharmaceuticals, specific precise analytical techniques are used to evaluate the Physical, Chemical and Microbiological stability studies.

3. Standardization of single and compound drugs

Standardization of crude drugs and the compound formulations as described by Unani experts is based on experience. Documentation of the same seems to be only statements of various authorities. Although they seem to be very accurate, yet these cannot be taken at par with a scientific statement. These claims need to be validated and the drugs need to be standardized on more precise scientific parameters.

4. Drug dosage forms

Dosage forms of Unani single and compound drugs are mentioned in our classical literatures. They are not changed from their ancient periods so need for Dosage forms evaluations on the basis of modern techniques is a major challenge for Unani system, so as to make it acceptable and pleasant to all. It needs to go to the basics of experimentation and requisite research.

5. Stability studies

Stability studies of drugs are necessary for betterment of patients for clinical efficacy of formulations and for drug regulatory requirements. In Unani classical literatures Unani scholars mentioned the different expirations dates of various Unani single and compound formulations. A validation of these claims is the challenge for all Unani pharmaceuticals. It is also a challenge for its global marketing.

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