

A SURVEY OF THE CONCEPTS AND MEASURES DEVELOPED
BY THE GRECO-ARAB PHYSICIANS RELATED WITH THE
PREVENTION AND TREATMENT OF THE INFECTIONS
AND EPIDEMIC DISEASES

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The basis of Unani system of medicine being humoral physiology, the temperament of human beings as a whole, individuals, humours, the diseases, foods, drinks, seasons etc. form the qualitative aspect of this system. The properties of the drugs and foods have been attributed to two things (1) the temperament and (2) the specific (*zulkhassa*) actions, the latter is considered more important and dependable than the first one. This article is an attempt to elaborate and highlight the ideas of Greco-Arab (Unani) physicians, on the above topic with a view to pin point the utility of pharmacological groups of the drugs as advocated and used by them for the treatment and prevention of infections and epidemic diseases.

Following are the two basic theories of Unani system of medicine related to the causation of diseases depending on the mode of origin.

1. Diseases caused by the imbalance of the humours born inside.
2. Diseases caused by the invasion of foreign bodies, which attack the humours. For instance, a vital organ like heart may be invaded, affecting its normal functions and the vital activities, which as a result, may be disturbed.

The infectious and epidemic diseases belong to the second category. The main things affected by the "*Ladia*" or *adva* (infection) and *Waba* (epidemic) are :

1. The humours.
2. The heart and other important organs like stomach, liver etc.
3. *Hararat-e-Gharizia* or vital heat.

The agents of infectious and epidemic diseases are the external factors, to be dealt with separately.

The treatment and prevention from the infectious and epidemic diseases are thus based on the following principles of Unani medicine :

1. To avoid the contact of polluted air, water and food and depollute or cleanse them.
2. To normalize and purify the humours, administering blood purifiers.
3. To administer the suitable drugs along with other classical therapies.
4. To use the *Advia Tiryaqia* and *Fad-e-Zaher* (antidotal drugs) for protection from infection and epidemics.
5. To tone up the heart and protect the vital heat from being reduced, or exhausted otherwise.

1. Avoidance of contact with the septic (polluted atmospheric) air, water (or drinks) and unhygienically preserved foods

The writings of Rhazes (d. 925 A.D.), Tebari (800-900 A.D.), Avicenna (d. 1037 A.D.), Jurjani (1085 A.D.), Behwa Khan (1500 A.D.), Azam Khan (1772-1902) and others are in favour of the above view. They advise to keep the healthy persons away from the victims of infectious and epidemic diseases, the damp places, humid airy climate, deep uneven and crowded accomodations.

Boiled water and rain water are said to be safe for use. The use of fruits containing plenty of water, fish and meat, which are easily decomposable, are unsafe as these prove to be the agents of infections. Likewise taking of light food and not keeping the stomach empty is also useful in preventing epidemics.

2. The normalization of the humoral imbalance and state of temperament. the basis of internal medication

The following categories of the drugs are proposed by the ancient physicians for the above conditions.

(i) Purification of humours by way of *rinzaj* (coction), *istifragh* (excretion of harmful materials).

(ii) Keeping the state of temperamental normalcy by taking suitable drinks and by observing hygienic principles.

Purification of body from morbid humours and toxic agents, and maintenance of a state of humoral balance, which is unfavourable for the infectious organisms, is done by using blood purifiers. A large number of acute as well as chronic infections can be cured by the above methods as evident from the writings and observations of the Greco-Arab (Unani) physicians.

Humoral balance may be maintained by observing the dietary and hygienic principles with due consideration of the age, sex, job, temperament, seasons and climate.

Blood purifiers reported in the Unani literature are of herbal and mineral origin. The herbal purifiers are mostly bitter in taste. These are used for fever due to different causes and as antiphlogistic, anti-inflammatory agents in the affections of liver, as well as of other abdominal and pelvic viscera. A long list of such drugs which act as anti-infectious agents may be prepared on careful survey of the literature.

The mineral drugs such as sulphur and arsenic preparations have also been used since long. During the medieval period, in the process of "give and take", the Unani literature has been enriched by various *Kushtas* from Āyurveda.

3. Use of Drug of 3rd and 4th degree and poisonous agents along with other classical modes of treatment for eradication of infections and epidemic diseases

Drugs are graded on the degree of their activity into the following groups.

- (0) Motadil.
- (1) Drugs of 1st degree.
- (2) Drugs of 2nd degree.
- (3) Drugs of 3rd degree.
- (4) Drugs of 4th degree.

The drugs falling under group motadil (Zero) are considered by the Unani pharmacologists nearly neutral in creating heat or cold and exert their effects maintaining the normal composition and state of the body constituents. In other words we can say, that negligible change may take place but the purpose of medication is fulfilled at the same time and hence the name (motadil) or moderate is applied to it.

The drugs of first degree also remain limited in their activity within the agreeable and tolerable state and do not exhibit any injurious effect on the body, though pharmacologically efficacious.

The drugs of second degree exhibit their action in a precise manner and are considerably noticeable with the evolution and diminution of the heat change in the basal metabolism and also the pharmacological response. If continued for a longer period beyond routine specifications, such drugs may prove injurious.

Drugs of third degree exert their powerful action and may prove harmful to the body to an appreciable extent, if used carelessly. Drugs of fourth degree exert their harmful effect, if not processed before use.

The poisonous agents prove fatal without processing and particularly when administered in lethal doses.

Contrary to the modern drugs of poisonous nature, the Unani drug of third and fourth degree and poisons if processed, and then used properly maintaining the traditional balance of the various components no harm may be experienced to the body.

The drugs of the third and the fourth degree and poisonous agents have been used by the ancient physicians in the treatment of acute and infectious diseases.

The metallic preparations, those of mercury, arsenic, silver, gold, lead copper, have been in use by the physicians for the treatment of infectious diseases, such as syphilis, gonorrhœa, scabies, plague etc.

The drugs of third and fourth degrees and poisons are more suitable for use after a course of *munzij* (coction) and *mushil* (excretion) classical therapy. Such a drug should be used alone, otherwise the injurious material, i. e. the toxins, their residues, faulty humours of bacteria, etc. remain in the body and their presence may manifest a number of complications.

4. Use of "*Adviva-e-Tiryaqia*" & "*Fad-e-Zaher*" (anti-dotal drugs) as anti-infectious and preventive measures against the infection and the epidemic.

Initially the word *tiryaq* in Unani Medicine was coined for the fatal poison but later on it was used for the remedy of the poison. *Tiryaq* is derived from the Greek word *tiryooq* meaning the poisonous biting or stings by the snakes and similar other animals. It was then gradually extended for broader concepts, including other fatal poisons which proved useful antidote for a different poison.

According to Johari *tiryaq* is a remedy for poisoning.

'*Tiryaq-e-Afi*', a compound medicine was used even before Hippocrates for the treatment of bites and also for protecting the healthy persons from epidemics.

Another prescription formulated by Galen as referred to by Najmul Ghani named *Tiryaq-e-Farooq* has been reported to be useful in rabies, plague, and for gangrenous wounds. This prescription is also used to tone up the vitality and preserve it in order to avoid the attack of diseases.

Later on a number of compound formulations named as *tiryaq* by various Hakims were developed for a number of diseases.

Tiryaq-e-Pechish (for dysentery and *tiryaq-e-nazla* for respiratory catarrhal inflammations and influenza have been developed by the Hakims of medieval period.

A number of other categories of drugs namely *advia-e-faad-e-zaher* (anti-dotes), *itriyat* (perfumes) and fragrant agents and formulations for the treatment and diseases like *haiza* (cholera), curbuncle, vomiting due to food poisoning, dysentery, *sangrehni* (a kind of chronic diarrhoea, gonorrhoea, syphilis, empyema blood impurities, septic inflammations, pimples of small pox, *sil* (pthisis), *jarb* (scabies), leprosy, conjunctivitis, trauchoma, *sarsam* (meningitis), diarrhoea, fevers, plague, corneal ulcers, common ulcers, *safa*, *qooba grin* (worm), diphtheria, pneumonia, purulent expectoration, pleurisy, pulmonary abscess, otorrhoea, compound fevers, malarial fevers, lymphadenophthies, infective hepatitis etc. have been reported by the physicians since the time of Hippocrates till date. The writings of Unani peers like Majoosi, Rhazeis (d. 925 A.D.), Avicenna (d. 1037 A.D.) Jorjani (1085 A.D.) Sharif Khan (b. 1725 A.D.) Alvi Khan (b. 1669 A.D.), Azam Khan (b. 1772 A.D.), Hakim Ali (1600 A.D.) Hakim Sualeh, Najibullah Khan, Hamim Kabir Ali Khan, Hadi Hessian, Babbar Ali Khan, Zakauallah Khan, Firozuddin Chughtai (1911 A.D.), Ghulam Jilani (1921 A.D.) Kabiruddin M. H. (d. 1975) may be specially referred to on this subject.

Most of the formulations for the above mentioned diseases, contain the drugs which have been classified as *advia-e-tiryaqia*, *advia-e-fad-e-Zeher* (antidotal drugs), antimalarial drugs and drugs of third and fourth degrees, poisons, and "*advia-e-yulkhassa*".

5. Use of cardiotonics and protection of vital heat

The Unani physicians have consensus on the supremacy of heart upon the vital activity and vital heat, responsible for the normal functioning and protection from the diseases. "*Advia-e-tiryaqia*" (antidotal drugs), cardiotonics, precious metals, precious stones and pearls have been used by the Unani physicians for this purpose. Single drugs as well as their compound formulations are very confidently used for toning up the heart providing enough energy to protect the body and vital heat from epidemic diseases. Not only the internal administration of these drugs has been found useful but even their external application has proved to be equally effective. Hanging or wearing of precious stones are reported to be effective for protection from certain epidemic diseases. The logic of the use of "*advia-e-tiryaqia*", cardiotonics "*faad-e-zeher*" may be understood in the back-ground of defensive mechanism of the body. The infectious and epidemic diseases can victimise only when the body is weak to fight back or resist the attack and defend itself from

the invasion. Since the Unani medical thought is based on the assistance provided to the body to protect from the diseases in general and the infections in particular, the use of cardiotonics, "faad-e-zeher" and "tiryaaqat" (anti-dotes) and other tonics seem to be correct to a great extent. In the same way "musaffiyat" (blood purifiers), antiinflammatory agents, the drugs used in the treatment of infectious and epidemic diseases, drugs of the third and fourth degree and poisons reported in the literature in use since long may be studied for further details, as well as practical work on this line. This may protect the human being from the hazards and toxic side effects of the antibiotics. In this way a new approach dealing with infectious, contagious and epidemic diseases can be developed with more effective potency and less hazards which will certainly be more readily acceptable to the Indian people and others who accept this system of treatment.

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