



which are described directly by Qualitative Temperament. The Arab scholars provided a strong basis for the correlation of the Hippocratic Humoral Theory with scientific Clinical Studies by discovering the Clinical Parameters of Humours which they called in Arabic as “*Ajnās ‘Ashara*” (Ten Categories). The Arabs took the Greek Pharmacology based upon the Qualitative Temperament of Drugs but they brought in Observation by discovering the physical parameters of Qualitative Temperament. They tremendously increased the role of observation and experimentation by proposing that Drugs act not only by Qualities but also by their Essence (*Ṣūrat Naw‘iyya*) and since, unlike Qualities, the Essence cannot be known by physical parameters, the Pharmacological Actions arising from Essence can be discovered only by random empirical observation.

2.2 BASIC PRINCIPLES

The Unani System of Medicine, is successful in providing holistic treatment i.e. Radical cure without significant adverse effects. Further, it is very easy to practise and always produces the reported effects. The majority of clinical trials on Unani treatment have found them to be effective. Drugs hypothesized to be effective in new diseases on the basis of Unani principles have been found to actually work in rigorous clinical studies. Its Holism, reproducibility and ease of practice and application depends upon unique basic principles which comprises of profound but well-systematized philosophical principles that provide valuable hypotheses of holistic preventions and treatment. It also includes the mandatoriness of testing these hypotheses by rigorous scientific experimentation and observation.

The remarkable Holism of Unani System of Medicine arises from giving primacy to the Temperament of man and drug, which unlike the molecular level, is simple and can be known as a whole. Its ease of practice arises from the fact that it uses only a few parameters i.e. the primary qualities (*Kayfiyāt*) of Hot:Cold & Dry:Wet to describe the temperament of both man and drug. Its precision and reproducibility arises from the principle of clinical testing of the drugs hypothesized by Temperament, before accepting them. This clinical testing also reveals effects which cannot be deduced from the temperament or basic qualities of the drug.

The basic principles comprise of:

- The Seven Natural Factors (*Umūr Tabī‘iyya*), essential factors for the constitution of human body
- The basics of Pathology (*Kulliyāt-i ‘Ilm al-Amrād*)
- The Principles of Diagnosis (*Uṣūl-i Tashkhīṣ*)
- The Principles of Treatment (*Uṣūl-i ‘Ilāj*)



The Natural Factors (*Umūr Tabī'iyya*)

Unani System of Medicine describes man to be made up of the following seven factors:

- a) Elements (*Arkān*): What man and the Universe, both biological and non-biological, including drugs are made up of.
- b) Humours (*Akhlāṭ*): The form taken up by elements in living things. Their balance is health while disbalance is disease.
- c) Temperament (*Mizāj*): It is the general quality of man, drug etc. due to the quality of dominant elements. It is used as the qualitative yardstick for measuring health and deviation from it, and for identifying the drugs that can restore the balance. It is the basis of constitutional medicine.
- d) Organs (*A'ḍā'*): The physical body.
- e) Pneuma (*Arwāḥ*): The subtle substance (i) having vitality and (ii) acting as carrier of physiological powers.
- f) Faculties (*Quwā*): The physiological powers responsible for corresponding basic functions of the organism i.e. life, nutrition, sensation, movement and reproduction.
- g) Functions (*Af'āl*): Functions of various organs.

Basic Elements (*Arkān*)

Basic elements in Unani Medicine are simple undivisible matters which provide the primary components for the human body and others. They cannot be further resolved into simpler entities. The various substances (compounds) in nature depend for their existence on their chemical compositions (*Imtizāj*). Everything in the Universe is composed of four basic elements in varying amount and proportion. Each element has two sets of basic qualities (*Kayfiyāt*): Hot or Cold and Dry or Wet. The four elements are Fire (*Nār*), Air (*Hawā'*), Water (*Mā'*) and Earth (*Arḍ*). Their basic qualities are:

Fire	: Hot & Dry
Air	: Hot & Wet
Water	: Cold & Wet
Earth	: Cold & Dry

All things including man and drug are made up of these four basic elements combined in different amount and proportion. Each thing is characterized by a new quality arising from the proportion and interaction of its constituent elements. These individual qualities can be broadly classified into four basic groups: Hot & Dry, Hot & Wet, Cold & Wet and Cold & Dry.



Humours (Akhhlāf): The Humours (*Figure 14*) are the liquid fundamental substance of living things, made up by the mixing and organic transformation of elements and thereby obtaining the ability to support biological processes i.e. life, nutrition & growth, sensation & movement and reproduction. The Humours are four in number and characterized by the dominant basic qualities:

Blood (<i>Dam</i>)	:	Hot & Wet
Phlegm (<i>Balgham</i>)	:	Cold & Wet
Yellow Bile (<i>Ṣafrā'</i>)	:	Hot & Dry
Black Bile (<i>Sawdā'</i>)	:	Cold & Dry

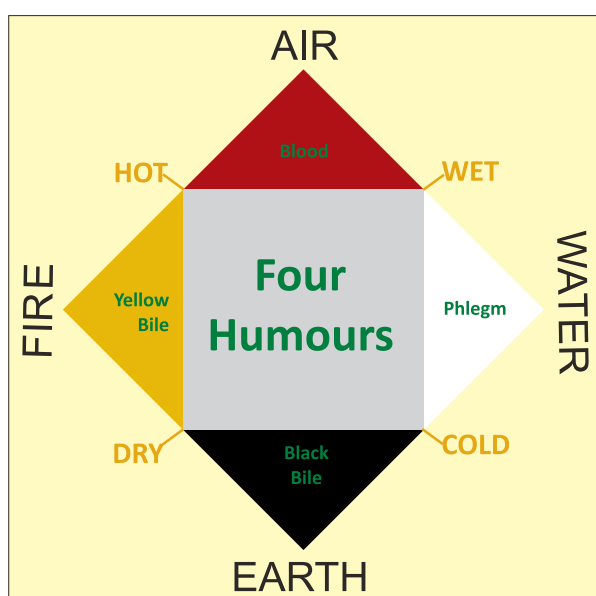


Figure 14: Schematic diagram of Humours (Akhhlāf)

The Humours are formed within various organs, primarily in liver and run together in the blood vessels. They have both Subtle (*Laṭīf*) and Gross (*Kathīf*) components. Subtle components mix to form *Arwāh* (s. *Rūḥ*) or Pneuma while Gross components give rise to the *A'dā'* or physical organs and body. Although, each Humour (*Khilṭ*) is made up by the mixing of Four Elements but corresponds to a particular element on the basis of the dominant quality. Every individual has a unique humoral composition which represents his specific temperament. All human beings are accordingly classified on the basis of the dominant Humour into:

Sanguine (<i>Damawī</i>)	:	Air	Hot & Wet
Phlegmatic (<i>Balghamī</i>)	:	Water	Cold & Wet
Choleric (<i>Ṣafrāwī</i>)	:	Fire	Hot & Dry
Melancholic (<i>Sawdāwī</i>)	:	Earth	Cold & Dry



However, these Temperaments show variations within a range depending on age, sex, race, geographical distribution, environment etc. The gross deviation from this unique balance due to any cause is disease. The diseases can be classified according to the abnormally dominant humour. The correction of imbalance by applying drugs and other factors having the opposite temperament results in cure.

Temperament (*Mizāj*): Human Beings are classifiable into four types which characterizes their entire being: body, mind and pneuma. Each type is associated with a dominant humour and named accordingly as:

Sanguine (<i>Damawī</i>)	Hot & Wet
Choleric (<i>Ṣafrāwī</i>)	Hot & Dry
Phlegmatic (<i>Balghamī</i>)	Cold & Wet
Melancholic (<i>Sawdāwī</i>)	Cold & Dry

However, the temperament can also be described in terms of the basic qualities, as shown in the second column. A person's well-being and proper treatment, in case of falling ill, depends upon eating, living and medicating in light of his/her temperament.

Drugs, diet, geographical regions, seasons, professional milieu and even the individual organs and body parts of man etc. all are characterized by respective temperaments. So, it is possible to make the necessary correlations between the temperament of man and the temperament of these factors. However, their temperament is expressed in terms of the basic qualities, whereas, man's temperament is expressed in terms of humours, which, however, is easily translatable into basic qualities.

The temperament of man, can be diagnosed by ten categories of bodily and mental parameters (*Ajnās 'Ashara*), e.g. complexion, texture, built, hair, dreams etc. The pathological change of temperament, in whole man or in particular body parts and organs, can also be diagnosed by changes in these parameters.

Organs (*A'dā'*): The physical body is made up of Organs/Tissues (*A'dā'*). They are of two types: Simple (*Basīt*) and Compound (*Murakkab*). The simple organs are tissues like fat, bone etc. while compound organs are poly-tissue structures like heart, brain, liver etc.

Pneumas (*Arwāh*): The *Rūh* (p. *Arwāh*) is subtle, physical substance made from the subtle components of the humours. It possesses vitality and provides life to the organism. It also acts as the seat and carrier of the physiological powers or faculties (*Quwā*) which are responsible for producing the corresponding physiological processes, e.g. nutrition & growth, sensation & movement etc.



Man possesses three pneumas, each generated in a vital organ:

Vital pneuma (<i>Rūḥ Haywānī</i>)	Heart
Psychic Pneuma (<i>Rūḥ Nafsānī</i>)	Brain
Natural Pneuma (<i>Rūḥ Ṭabī'ī</i>)	Liver

Since, the faculties subsist in the pneuma, derangements of the temperament of the pneuma can vitiate the functions of the faculties and the restoration of the temperament of pneuma by drugs of opposite temperament will restore the function. Mind corresponds to the psychic faculty which subsists in psychic pneuma. So, Unani System of Medicine treats mental diseases mainly by using drugs to rebalance the temperament of the psychic pneuma. Thus, Unani System of Medicine is very successful in curing psychiatric diseases by treating the mind as a substance.

Faculties (*Quwā*): These are the physiological powers that give rise to corresponding physiological functions. The faculties are non-substantial powers that can exist in the organism only by subsisting in the corresponding pneuma. The primary faculties, their carrier pneuma and their functions are as follows:

<i>Quwwat Ṭabī'iyya</i> (Natural Faculty) • <i>Quwwat Muwallida</i> (Generative Faculty)	Natural Pneuma	Nutrition & Growth Reproduction & Propagation of species
<i>Quwwat Haywāniyya</i> (Vital Faculty)	Vital Pneuma	Life, Respiration, Circulation & Coordination
<i>Quwwat Nafsāniyya</i> (Psychic Faculty)	Psychic Pneuma	Intelligence, Sensation & Response

The faculties get drawn and attached to the corresponding pneuma as soon as the pneuma attains their proper temperament.

Functions (*Af'āl*): They are the physiological functions and processes undergoing in organs and tissues due to the operation of faculties or physiological powers.

2.3 CLASSICAL UNANI RESEARCH METHODOLOGY

Unani System of Medicine not only described basic principles, extensive clinical descriptions of diseases and thousands of medicaments and formulations but it also laid down, hundreds of years ago, a precise research methodology: Treatment of a disease should be inferred by determining the temperament of a disease and the temperament of the drug to be used in particular disease. The temperament of the drug must be compatible with the temperament



of the patient on the principles of Heterotherapy ('*Ilāj bi'l-Ḍidd*) and these conclusions should be tested by rigorous scientific testing. It also had the principle that some drug effects cannot be inferred by any general theory and can be discovered only by empirical study (Figure 15 & 16). Burhān al-Dīn Nafīs, a Unani scholar of the 15th Century says in his widely used book *Kulliyāt Nafīsī*:

“The physician requires to infer particular remedies in the light of general principles of Temperament etc. Then, whatever inference he has made from the Principles, should be practically tested, so that, if it does not prove effective he may infer another remedy (and test it). Further, certain diseases respond to remedies which are known by empirical study only”.



Figure 15: Image of the 16th Century work ‘Kulliyāt Nafīsī’ mentioning necessity of Scientific Clinical testing (Tajarba) in Drug discovery

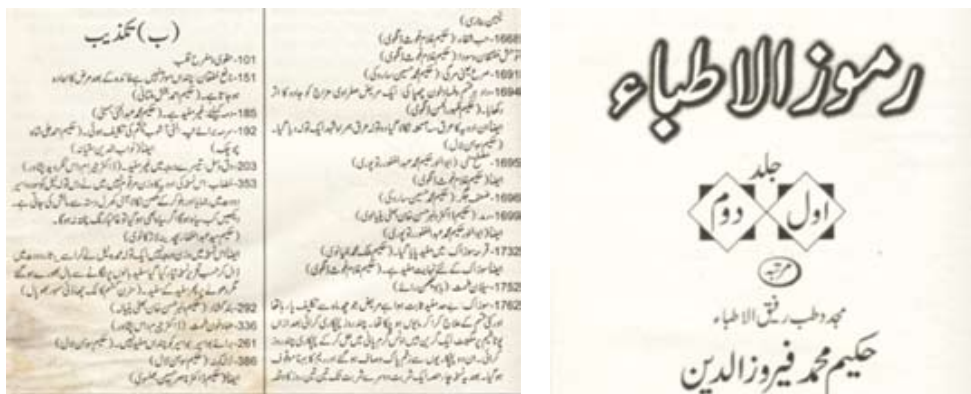


Figure 16: Early 20th Century ‘Rumūz al-Atibbā’ authored by Ḥakīm Muḥammad Fīroz al-Dīn recorded both positive and negative reports by Unani Physicians about claimed effects of some herbal drugs. This indicates scientific nature of Unani Literature.



Thus, it is a traditional medicine that along with having a deep and easy to apply philosophical vision, provided importance and space to empirical scientific testing. Due to effective philosophical principles, it succeeded in maintaining its philosophy-based holism.

2.4 DISEASE PROCESS

The Unani System of Medicine defines both health and disease as well as an intermediate state. In great majority of illnesses, the disease is basically an imbalance in the normal temperament and also comprises of disorganization and discontinuity of structure. However, these three basic pathologies may exist independently too.

States of the Body

According to Unani System of Medicine states of the body are grouped under three heads:

Health (*Ṣiḥḥat*) in which all the functions of the body are in the range normal for a particular individual.

Disease (*Maraḍ*) is the opposite of Health in which one or more functions or forms of the bodily organs are at fault.

Neither health nor disease (*Lā Ṣiḥḥat Lā Maraḍ/ Ḥalat Thalātha*), in which there is neither complete health nor disease, as in the case of old people or those who are convalescing.

Disease (*Maraḍ*)

Disease (*Maraḍ*) amounts to a pathological condition of the body which is provoked by a cause. They are of two types:

Single disease (*Maraḍ Mufrad*)

Complex disease (*Maraḍ Murakkab*)

A single disease may manifest itself in any of the following three forms:

Dyscrasia (*Sū'-i Mizāj*): The temperament wherein the qualities and quantities of all the participating elements in a compound are not in accordance with what the compound is made for.

Structural diseases (*Amrāḍ-i Tarkīb*): Abnormality of Structure

Diseases of dissolution of Unity (*Amrāḍ-i Tafarruq-i Ittiṣāl*)

Complex disease is a combination of two or more single diseases.



Cause (*Sabab*)

Cause (*Sabab*) corresponds with the aetiology. It can be defined as a specific factor which either maintain the state of the body or changes it from health to sickness or from sickness to health. Causes of diseases can be divided into two types: External causes (*Asbāb Bādiya*) and Internal causes (*Asbāb Bāṭina*). External causes are those which affect the body from outside such as excessive hot or cold climate, a polluted atmosphere, injury etc. Internal causes are those which appear and affect the body internally such as formation of stones inside the kidney or bladder.

Secondary Abnormality (*‘Araḍ*)

Secondary abnormality (*‘Araḍ*) arises from the basic pathology. In diarrhoea, for example, dehydration is a major secondary abnormality.

The basic pathology (*Marad*) and the secondary pathology can be diagnosed by the particular signs and symptoms (*‘Alāmāt*).

2.5 PRINCIPLES OF DIAGNOSIS AND TREATMENT

In accordance with its holistic vision of man and disease, Unani System of Medicine uses macroscopic parameters rather than microscopic or biochemical parameters for diagnosis. Since, its holism also takes into account the subtle level of man, therefore, Unani System of Medicine also uses subjective parameters, such as dreams. However, its diagnostic system is very sophisticated and accurate and succeeds in diagnosing diseases in a reproducible manner. Secondly, being macroscopic, it is highly economical and independent of technological paraphernalia. It also has the conceptual framework to use modern medical diagnostic means in some cases where they are useful at a secondary level. For instance, since it considers discontinuity in structure as a basic pathology, it has no hesitation in using endoscopy to see extent of gut ulceration after diagnosing the basic pathology by its macroscopic method.

The unique holistic diagnostics of Unani System of Medicine comprises of History, Physical Examination, Pulse Examination and Inspection of Excreta.

History Taking and Physical Examination (*Rūdūd o Mu‘āyana*)

It is undertaken according to general parameters and the specific parameters required by the particular problem of the patient, guided mainly by the ‘Ten Fundamental Categories’ (*Ajnās ‘Ashara*).

Pulse (*Nabḍ*)

Rhythmic expansion and relaxation of the arteries produced by the systolic and diastolic



movement of the heart is called pulse. The Pulse is fundamentally observed in the light of ten parameters. Apart from these, some other types of compound pulses have also been described in Unani System of Medicine. Further, the specific type of Pulse in each disease is also described, mainly in the light of the general parameters.

Unani physicians judge the nature of the functional disturbance of the human system empirically by examining the pulse of a patient. This judgment is based on the experience of the individual physician.

Pulse is examined by ten features viz. size, strength, speed, consistency (elasticity), fullness, temperature, rate, frequency (constancy), regularity and rhythm. It should be noted that pulse has a rhythm similar to that of music. In music the notes are related to one another both in their pitch and time intervals. The case of the pulse is also similar because its beats are related to one another in strength and time intervals.

Unani scholars have described pulse under several headings such as normal pulse, factors governing the pulse, effects of patient factors such as sex, age, temperament and season, region and country, food and drink, sleep and wakefulness, exercise, bath, pregnancy, pain, swelling, emotions and of factors inimical to the body.

Physical Examination of Urine

Physical examination of urine helps a lot in the diagnosis, not only of uro-genital diseases but other systemic disorders also. For this following aspects are taken into account:

- (i) Quantity (*Miqdār*)
- (ii) Colour (*Lawn*)
- (iii) Odour (*Rā'īha*)
- (iv) Consistency (*Qiwām*)
- (v) Foam or Froth (*Zubda*)
- (vi) Clearness and Turbidity (*Ṣafā o Kudūrat*)
- (vii) Sediments (*Rasūb*)

Physical Examination of Stool

The physical examination of stool also helps in the diagnosis of various diseases. Colour, quantity, consistency and the presence of foreign bodies are observed during physical examination.



Principles of Treatment (*Uṣūl-i 'Ilāj*)

In Unani System of Medicine, the management of diseases depends upon the pathology involved in the disease process. These principles are as under:

- **Removal of the causative factor (*Izāla-i Sabab*):** The causative factors in the pathology of the disease process are determined and removed for the proper management of the disease.
- **Normalization of the morbid temperament (*Ta'dīl-i Mizāj*):** The disease in which, the temperament of a person is altered without affecting the quality and quantity of humours, only correction of simple morbid temperament is required. This is achieved simply by modifying the lifestyle of the patient in view of essential and non-essential factors.
- **Evacuation of morbid material (*Tanqiya*):** If the temperament is changed due to increase in the quantity and volume of certain humours and that morbid material in the body gets accumulated, it is evacuated by various therapies through different routes for the cure of the disease *e.g.* Cupping (*Hijāmat*), Venesection (*Faṣd*), Leeching (*Ta'liq*), Concoctive (*Mundij*) purgative (*Mushil*) Therapy, expectoration (*Tanfīth*), Diuresis (*Idrār-i Bawl*), Diaphoresis (*Ta'rīq*) etc. which are described in details in Chapter 4 (Therapeutic Approaches).
- **Heterotherapy (*'Ilāj bi'l-Ḍidd*):** This is the main principle of treatment in Unani System of Medicine, in which the drug having opposite temperament to the disease is administered for the correction of morbid temperament and cure of illness.
- **Holistic approach:** In the management of the systemic diseases the entire lifestyle and the constitution of the patient is taken into account for making the diagnosis and prescribing the correct treatment. It includes habits, habitat, physical, emotional, temperamental and humoral status of the patient and condition of system/organ of the body involved.
- **Surgical and parasurgical procedures (*'Ilāj bi'l-Yad*):** In Unani System of Medicine, diseases of the structure (*Sū'-i Tarkīb*) and breach of continuity (*Tafarruq-i Ittiṣāl*) are treated by using suitable operative and para-operative techniques as applied for the treatment by the Unani scholars.
- **Psychiatric Treatment (*'Ilāj Nafsānī*):** The Unani System of Medicine treats psychiatric diseases by using drugs, modifying mind-related processes like sleep and psychotherapy. It is able to use drugs by its discovery of the 'substance of mind' i.e. Psychic pneuma (*Rūḥ Nafsānī*) while its appreciation of the medical importance of processes, physical conditions etc., which it organizes as 'Six Essential Factors' (*Asbāb Sitta Ḍarūriyya*), helps it to closely relate sleep etc. to the improvement of psychiatric and psycho-somatic diseases. It also makes use of psychotherapy by manipulation of mind by verbal means. But its main reliance is on drug treatment



as it has discovered the subtle substance of mind and its relation with drugs due to their common temperament.

- **Spiritual Treatment ('Ilāj Rūḥānī):** The Unani System of Medicine recognizes the role of spiritual health and treatment by discovering that the spirit () is joined to the Pneuma and through them, to the body, and is the supreme regulator of man. However, the Unani System of Medicine restricts itself only to the Pneuma and Body, and leaves spiritual treatment to religious and spiritual counselling by spiritual experts. Although, it does not oblige the physician to be a spiritual authority but culturally most physicians are also spiritually advanced and provide religious and spiritual counselling which has a powerful role in healthcare by facilitating a healthy lifestyle and by destressing the patient. The technical limitations of medicine to only pneuma and body allows people of all religious persuasions to practise Unani System of Medicine, while recognition of religious and spiritual counselling as a complementary activity permits spiritual dimension of healthcare.
- **Three primary sources of drugs (Mawālīd Thalātha):** In Unani System of Medicine, drugs obtained only from herbal, animal and mineral sources are used for medication. Sometimes, these drugs are used singly, and sometimes in the form of a compound of various drugs. They may be subjected to physico-chemical processing but without breaking up their natural character. Thus, Unani System of Medicine uses only Natural Substances in treatment.



PREVENTIVE AND PROMOTIVE HEALTHCARE

The Unani System of Medicine includes the Science of Maintaining Health (*Hifẓān-i Şihhat*). It has the methods of understanding and maintaining health in a positive and individualized manner, with different guidelines for different temperaments, genders, age-groups, geographical regions, seasons, occupations etc. Some of the more commonly used guidelines are summarized as: Regimens for Seasons (*Tadābīr-i Mavsam*), Regimens for Age-groups (*Tadābīr-i Asnān*), Regimens for Pregnancy (*Tadābīr-i Ḥaml*), Regimens for Travellers (*Tadābīr-i Musāfir*) etc. The section on maintenance of health is followed by methods for preventing disease. It should be noted that it describes not only Prevention of Disease (*Taqaddum bi'l-Hifẓ*) but Promotion or what it calls Maintenance of Health (*Hifẓān-i Şihhat*) as a separate discipline, which should be used even before Prevention of Disease. This is because, being holistic, it possesses a positive concept and description of health. Though, understandably quite elaborate, the section on treatment of diseases comes only after promotive and preventive guidelines.

Like treatment of disease, maintenance of health is also based upon both deeply profound principles, and rigorous testing and experimentation. As in treatment of disease, so in promotion of health and prevention of disease, the most basic principle is Temperament (*Mizāj*). In disease, treatment is done by using non-drug and drug factors of *opposite* Temperament, while for maintenance of health, mostly non-drug factors of the *same* Temperament are used.

It divides Health into three states: Stable Optimum Health, Vulnerable Optimum Health, and Debility without Disease. The first state should be maintained by a minutely described healthy lifestyle – both physical and psychic, and by a healthy environment and diet, specially tailored according to the Temperament of the individual, which is determined not only by their innate Temperament but also by their Occupation, Region, Habitation etc.

The second and third states additionally require special diets, regimens (Massage, Exercise etc.) and even drugs. For maintenance of health Unani System of Medicine specially emphasises the Six Essential Factors (*Asbāb Sitta Darūriyya*) i.e. Air, Food and Drink, Bodily Movement and Repose, Psychic Movement and Repose, Sleep and Wakefulness, and Evacuation and Retention. Present day lifestyle-related disorders *e.g.* Depression, Hypertension, Coronary Heart Disease, Obesity etc., which are the major health burden of present times, can be successfully, economically and safely managed by following the instructions with regard to these Essential Factors.



3.1 HOLISTIC APPROACH TO HEALTH AND DISEASE

Unani System of Medicine is known for its remarkably effective and safe healthcare. One of its unique characters is to take into account a very wide and comprehensive range of factors: biological, sociological, geographical, psychic etc., and secondly, to integrate them into its basic classification and correlative scheme by determining their Temperament (*Mizāj*), so that the type and quantity of each of these factors, which is appropriate for an individual person, can be determined.

Thus, a Hot & Dry person will become more Hot by living in a warm region and having an occupation involving heat. So, he should take only a moderately Hot diet, indulge in only moderate exercise, and take more of sleep which is a cooling factor. The Arabian scholars who finally developed the basic principles of Unani System of Medicine were keen discoverers and open minded. So, they could discover a large number of factors by observation, as well as adopt factors discovered by other people, without any prejudice. Besides, they were highly intuitive and rational, and developed parameters for applying the principle of Temperament, originating in Greece, to newer and newer factors.

3.2 SIX ESSENTIAL FACTORS

The observational and philosophic genius of Unani System of Medicine found one of its best expressions in the Six Essential Factors (*Asbāb Sitta Darūriyya*), whose appropriate deployment in the life of a person, determined by their Temperament, ensures health. In fact, Unani System of Medicine describes all the Factors affecting health and disease, of whom those affecting all human beings perpetually are called Essential (*Darūriyya*), while, the rest are called Non-Essential (*Ghayr Darūriyya*). The Essential Factors cover a very wide range, and their creatively thoughtout applications or rectifications are even more numerous. For instance, pure and profuse air is essential for health. So, houses should be spacious, and cities should have gardens. On the other hand, unavoidable problems can be managed by using corrective factors, e.g. Health hazards of living on damp river-banks can be avoided by including anti-phlegmatic herbs as spices in the diet.

These Six Essential Factors are remarkable in providing such six categories that can include a very large number of factors, which may outwardly be quite distant to each other. Thus, one of the six Factors is 'Movement and Rest,' health being dependent on movement and rest appropriate to the Temperament of a person. Movement is both active and passive, practices like Swinging (*Urjūha*) also serve as exercise, which even a paralytic person can undertake. Further, exercise is needed not only for muscles but for the senses also, in fact for all organs: the exercise of vision being to gaze at beautiful objects and scenes and at intricate patterns, while, the exercise of Hearing being listening to music and songs. This shows the genius of Unani scholars to discover very large number of factors as well as simple schemes that could classify them into a very small number of categories, thus allowing easy application.



It should be noted that the ‘Six Essential Factors’ are used not only for maintaining health and preventing diseases, but also for treating diseases. Departing from principles of these factors results into disease, and following them through various modes of Regimenal Therapy (*‘Ilāj bi’l-Tadbīr*), including Massage (*Dalk*), Exercise (*Riyādat*), Turkish Bath (*Hammām*), Cupping (*Hijāmat*), Venesection (*Faşd*), Leeching (*Ta’līq*) etc., Pharmacotherapy (*‘Ilāj bi’l-Dawā*) and Dietotherapy (*‘Ilāj bi’l-Ghidhā*), helps to restore health.

Air (*Hawā’*)

Air is the most crucial factor for life. It helps in the production and maintenance of Pneuma, which is the source of Vitality. The discovery of oxidative energy production, dependent on atmospheric oxygen, has revealed one aspect of vitality at the molecular level. Secondly, Air is the medium of most of the external factors affecting life and health, *e.g.* the Seasons with their different heat and cold, influence human beings by affecting the Temperament of Air which is taken in by breathing. Similarly, subtle, gaseous and even particulate things like chemical and biological pollutants etc. alter the Temperament of Air to harm the health of man.

Unani System of Medicine uses Air in Prevention and Treatment chiefly by taking into account the seasonal variations in Air. For instance, in summer, Air becomes more hot, so cold food and moderate movement and exercise should be adopted to remain healthy.

Food and Drinks (*Ma’kūl o Mashrūb*)

Food is second only to Air in maintaining life and health by replacing the body’s used-up and broken-down components (*Badal mā Yataḥallal*). Keeping in view the importance of Food, Unani System of Medicine makes extensive use of Diet both for promotion of health and treatment of disease. It has been very successful in identifying the appropriate Food by using the principle of Temperament. A healthy man should use mainly the food of the Temperament similar to his own Temperament. However, if he is threatened with a pathological shift in his Temperament, he should use food of the opposite Temperament. Thus, in spring, when increasing Hotness of Air threatens to unbalance his normal Temperament; cold Food like Pomegranate Preparations (*Rummāniyya*) should be used by a man of Hot Temperament.

Unani System of Medicine brackets drinks with Food because, despite lacking nutrition, water is crucial since Food becomes effective only in solution. So, it provides extensive guidelines for the type of water and the appropriate time for drinking it. For instance, in order to ensure proper digestion, people of Hot Temperament should drink water during meals, but cold Temperament persons should use water only after the digestion has fully set in.



Bodily Movement and Repose (*Ḥarakat o Sukūn Badanī*)

The Unani System of Medicine gives great importance to both appropriate Movement and Rest for maintaining health and for curing disease. Movement is necessary for evacuating waste products, and Rest is needed for retaining Nutrients till the completion of digestion. Unani System of Medicine offers a wide concept of Exercise of all organs. It classifies Movement into two types: high frequency and intensity with short duration, which increases Heat; and low frequency and intensity with long duration, which increases metabolism. It recommends Moderate Exercise, which produces moderate sweating, but discourages Intense Exercise, which produces profuse sweating. It even considers Massage (*Dalk*), Turkish Bath (*Ḥammām*), slow horse riding and Swinging (*Urjūha*) as Moderate Exercise, and prescribes the latter for paralytic persons. Boat Ride is prescribed for treating Chronic Diseases like Leprosy and Dropsy.

Psychic Movement and Repose (*Ḥarakat o Sukūn Nafsānī*)

The Unani System of Medicine fully recognizes the role of psychic states in maintaining health and treating disease. Unani Medicine describes Mental States basically in terms of the Movement and Repose of Pneuma. Its Movement increases Heat while Repose increases Cold. So, excessive Movement or Repose of Pneuma causes Hot and Cold pathologies. For instance, extreme anger moves the Pneuma to the exterior, making both Pneuma and the Body abnormally Hot, which may give rise to Hot mental and bodily maladies *e.g.* Mania and Epistaxis, respectively. On the contrary, extreme fear makes the Pneuma flee to the interior and the resultant Cold can give rise to Loss of Consciousness and Bradycardia.

Thus, these pathologies can be managed both by altering the mental states and by administering Cold or Hot drugs. This is the basis of the unique and successful Psychopharmacological management of Psychiatric and Psychosomatic diseases in Unani Medicine.

In addition to considering the Pneuma as basic to Mental States, Unani Medicine considers the Heart and the Brain to be specially relevant, as Heart is the seat of Pneuma (*Rūḥ*) and the Soul (*Nafs*), while, Brain is the seat of Psychic Faculties (*Quwā Nafsāniyya*). So, Mental States - described by Unani Medicine in terms of Psychic Movement and Repose – specially affect Heart and Brain Function. It must also be appreciated that, since, Unani Medicine considers Heart Function to be basically the maintenance of Vitality (Energy and Immunity), therefore, it describes close correlation of Mental States with Immunity.

Avicenna (Ibn Sīnā) also states that in addition to affecting Hot or Cold Quality of man, some Psychic states have specific effects also, *e.g.* observing a sour food can make the teeth feel this taste. This phenomenon is used as the basis of Psychotherapy, *e.g.* ending hysterical paralysis by making a provoking statement.



Sleep and Wakefulness (*Nawm o Yaqza*)

Sleep is necessary for preserving Pneuma and Vitality and providing replacement of wear and tear (*Badal mā Yatahallal*), while Wakefulness is necessary for voluntary functions. Since, they resemble Repose and Movement, respectively, excess of Sleep increases Coldness and Wetness, while excess of Wakefulness increases Hotness and Dryness. Therefore, moderation should be exercised with regard to them. Just as Wakefulness helps voluntary functions, particularly intellectual functions, Sleep helps digestion. So, the Digestion of Hot Food is more dependent on Sleep.

Evacuation and Retention (*Istifrāgh o Ihtibās*)

Evacuation is needed for removal of waste products which may cause obstructions or embolism and toxicity. Retention of nutrients etc. is needed not only for full digestion and metabolism but also to maintain reserves of nutrients and essential substances. Evacuation takes place by defecation, micturition, coitus, sweating etc. Unani System of Medicine puts great emphasis on proper evacuation and prescribes mild laxatives like beet root soup for managing mild constipation. It also encourages all those activities in moderation that lead to evacuation, e.g. coitus, Turkish Bath etc.

3.3 LIFESTYLE MANAGEMENT

The Unani System of Medicine puts great emphasis on Lifestyle Management for promotion of health and prevention and treatment of disease. Therefore, it is of immense relevance to present times as lifestyle diseases like Hypertension, Diabetes, Depression etc. are imposing the greatest burden on healthcare. Unani Medicine provides very comprehensive, specified and individualized guidance for this purpose.

The Unani System of Medicine integrates both external environment like Seasons, Air Purity, Food and Drinks, as well as internal environment i.e. movement and rest, sleep and wakefulness, evacuation and retention etc. It regulates both bodily states as well as psychic and mental states. It has invented very ingenious interventions in these areas, such as Swinging (*Urjūha*) and Boat Riding as an exercise for weak persons and paralytics. It has given a wide concept of Exercise by including under it the use of the Five Senses and undertaking the function of all organs and systems, such as, thinking, imagining, breathing, coitus etc. Most importantly, it has correlated all these factors with each other and with human beings by discovering their Temperament (*Mizāj*). Thus, it can individualize the appropriate quality and quantity of Diet, Bodily Movements, Mental Activity etc. for each individual, period of life i.e. Childhood, Old Age, Gender, Season etc. Assignment of Temperament to all factors also allows substituting one factor by another if the former is not under control, e.g. the effect of Seasons or Psychic States can be moderated by Diets, Drugs, Clothing, Exercises, Massage, Bathing etc. So, by describing the Healthy State and Disease in terms of a Normal Temperament and a Pathological Temperament, and by



assigning Temperament to Drugs and to a very wide range of environmental factors, such as Diet, Season, bodily and mental activity etc. Unani Medicine provides multifactorial guidelines to successfully maintain health by using same Temperament factors in Health and opposite Temperament factors in Disease.

Both promotion of health and treatment of disease can be done to a great extent by non-drug factors, which are safer, cheaper and more easily employed than drugs. On account of its ability to undertake health promotion and disease prevention by non-drug lifestyle factors, the Unani System of Medicine is of great relevance to present-day healthcare, as lifestyle related diseases like Hypertension, Diabetes, Depression etc. make up great burden for healthcare in these days.

Prophylactic Drugs

Although, prophylaxis by non-drug factors is an obvious strong point of Unani System of Medicine, the presence of prophylactic drugs is no less important as many serious prophylactic objectives require potent interventions which obviously can be provided only by drugs.

Unani System of Medicine prescribes a large number of drugs for preventive purposes. Some of them can be considered rather general as the indications for their use are general factors, such as climatic characters, seasonal variations, age and occupation. For instance, *Smilax chinensis* (*Chob chīnī*) is used in healthy people when they enter the middle age period of 40 to 50 years. The procedure of administering the drug is accompanied with the precautions of not using cold foods and drinks. The use of Honey and *Crocus sativus* (Saffron) is also an example of prophylactic medications to protect the body from ill-effects of cold climate. Some other prophylactic drugs are: *Glycyrrhiza glabra* (*Aṣl al-Sūs*), *Coriandrum sativum* (*Kishnīz*), *Berberis vulgaris* (*Rasavt*) etc.



THERAPEUTIC APPROACHES

Treatment is adopted when Prevention fails and disease occurs. It is mainly based upon Heterotherapy (*'Ilāj bi'l-Ḍidd*). Disease, which amounts to the emergence of an abnormal Temperament, is treated by applying Drugs and Non-Drug Factors with opposite Temperament. Since, Environmental Factors, Diet and even Mental States etc. either themselves possess a Temperament or affect the Temperament, the Unani System of Medicine uses these non-drug factors very frequently and extensively, on the basis of this correlation. The Unani System of Medicine has also discovered some Specific Drug Effects, arising from Essence (*Sūrat Naw'īyya*) and not from the Qualities (Temperament). Therefore, it uses these Specific Drugs (*Adwiya Dhū al-Khāṣṣa*) also, particularly in serious diseases, as these drugs are generally more potent. The Unani System of Medicine also uses Surgery (*'Ilāj bi'l-Yad*), including Ophthalmological, Gynaecological and Obstetrical Surgery.

Thus, Unani System of Medicine describes following modes of treatment:

- Regimenal Therapy (*'Ilāj bi'l-Tadbīr*)
- Dietotherapy (*'Ilāj bi'l-Ghidhā'*)
- Pharmacotherapy (*'Ilāj bi'l-Dawā'*)
- Surgery (*'Ilāj bi'l-Yad*)

However, the first preference of treatment is given to regimenal therapy and diet, and drugs and surgery are used only if required.

4.1 REGIMENAL THERAPY

Regimenal therapy (*'Ilāj bi'l-Tadbīr*) is one of the most popular methods of treatment, practised by Unani physicians since antiquity. Literally, '*Tadbīr*' is an Arabic word meaning 'regimen' or 'systematic plan' whereas '*Ilāj*' means 'therapy' or 'treatment'. Thus, '*Ilāj bi'l-Tadbīr*' means treatment through regimen, by which care of the sick person is taken and the general health is maintained. In this way, Regimenal therapy comprises mostly non-medicinal procedures by which the lifestyles for preservation of health and treatment of disease are modulated. Ancient Unani physicians, *e.g.* Hippocrates, Galen, Rhazes, Avicenna, Albucasis etc. have described various regimens for the management of diseases, either independently or in combination with other therapies. These include changes in diet, physical exercise, lifestyle modification and measures to eliminate the morbid humours (*Tanqiya*) from the body or divert them (*Imāla*) by Cupping (*Hijāmat*), Massage (*Dalk*),



Leeching (*Ta'liq*), Venesection (*Faṣḍ*), Purgation (*Ishāl*), Emesis (*Qay'*), Diuresis (*Idrār-i Bawl*), Enema (*Huqna*), Diaphoresis (*Ta'rīq*), Expectoration (*Tanfīth*), Counter Irritation (*Īlām*), Sitz Bath (*Ābzan*) etc. Some other regimens are also used for elimination/diversion of morbid material or resolution of the inflammation, e.g. Turkish bath (*Hammām*), Irrigation (*Naṭūl*), Fomentation (*Takmīd*) etc.

Cupping (*Hijāmat*)

Hijāmat (Figure 17) is literally derived from an Arabic word '*hajm*' which stands for volume, but technically used for "to suck". It is a technique in which a cup is applied over the surface of skin by creating vacuum, and it is known as dry cupping (*Hijāmat bilā Sharṭ*) (Figure 18). Sometimes, scarification is done at the location of cupping to draw blood from the body part to relieve internal congestion, and this process is known as wet cupping (*Hijāmat bi'l-Sharṭ*) (Figure 19).

The objectives of Cupping are as follows:

- To eliminate/divert the morbid material
- To enhance the blood supply and correct cold temperament or to rectify the temperament of a particular organ
- To achieve antispasmodic and detoxifying effect
- To evacuate waste products through skin



Figure 17: Galen performing cupping (*Hijāmat*)



Figure 18: Dry cupping (Hijāmat bilā Shart)



Figure 19: Wet cupping (Hijāmat bi'l-Shart)

Leeching (*Ta'liq*)

Leeching (*Ta'liq*) (Figure 20) is a method of elimination of morbid matter (*Mawād Fāsida*) from the body. In this procedure, Leeches are applied on the affected part to suck the blood from deeper tissues. During this process, the leeches also infuse their saliva into the blood, which is a complex mixture of different biologically and pharmacologically active substances. Recently, various studies have been conducted to validate these methods in various diseases, *e.g.* Arthritis, Hypertension, Skin disorders etc.



Figure 20: Leeching (*Ta'liq*) on a frostbite patient

Venesection (*Faşd*)

Venesection (*Faşd*) is a method of absolute elimination (*Istifrāgh Kullī*), used to remove the excess of humours or to get rid of morbid matter (*Mawād Fāsida*) from the body. In this procedure, an incision is given to the superficial veins and blood is allowed to flow. The objectives of the procedure are as follows:

- To remove excess of humours
- To prevent toxicity and accumulation of waste material in blood
- To excrete the waste material from various parts of the body
- To stimulate metabolic processes
- To correct the altered temperament



Turkish Bath (*Ḥammām*)

Ḥammām is derived from the word “*Ḥamm*”, which means “to bathe”. In fact, *Ḥammām* is a place used for bathing, consisting of several rooms with one room leading to the other with specific provisions and conditions customized according to the disease to be treated. The objectives of Turkish Bath are as follows:

- To reduce viscosity of the humours
- To improve health in the debilitated individuals
- To increase innate heat of the body
- To improve metabolism
- To evacuate waste products through skin
- To treat the paralysis and muscular wasting
- To strengthen the body
- To cure obesity

Massage (*Dalk*)

Massage (*Dalk*) is a manipulation of superficial and deeper layers of muscle and connective tissues using various techniques, to enhance body functions, healing process, and promote relaxation and well-being. Various types of *Dalk* have been recommended in Unani System of Medicine for the management of various disorders *e.g.* *Dalk Ṣulb*, *Dalk Layyin*, *Dalk Kathīr*, *Dalk Qalīl*, *Dalk Mu‘tadil*, *Dalk Khashin*, *Dalk Amlas* etc. The objectives of *Dalk* are as follows:

- To increase weight
- To relieve psychosomatic disorders
- To relieve backache, headache, and muscular pain

Physical Exercise (*Riyāḍat*)

Physical exercise (*Riyāḍat*) is any voluntary movement of body or its part that enhances or maintains physical fitness and over all health. It plays an important role not only in maintaining good health and prevention of diseases but also in curing certain ailments. The objectives of physical exercise are as follows:

- To improve metabolism
- To tone up the organs/systems



- To maintain or improve flexibility, co-ordination and balance of the musculoskeletal system
- To strengthen the body as a whole
- To relieve anxiety, insomnia and depression
- To remove waste products from the body

Diuresis (*Idrār-i Bawl*)

Diuresis (*Idrār-i Bawl*) is a process in which formation and excretion of urine is increased for the management of bodily ailments. It is one of the important processes adopted for evacuation of morbid matter from the body through urine. Diuresis can be induced by adopting specific methods like exposure to cold, drinking of cold water and intake of plenty of fluids. It can also be induced with the help of certain drugs that have been mentioned in classical Unani literature under the heading of Diuretics (*Mudirr-i Bawl*). The objectives of Diuresis are as follows:

- To excrete waste products and excess of humours through urine
- To purify blood and evacuate morbid humours
- To manage diseases of heart, kidney and liver

Purgation (*Ishāl*)

Purgation (*Ishāl*) is a method of elimination of waste and morbid matter from the body through rectum. During this process, the frequency of stool is increased by decreasing the absorption of water in the intestines, by increasing the peristaltic movement or both.

Emesis (*Qay'*)

Emesis (*Qay'*) is the evacuation of gastric contents through mouth. The main purpose of emesis is to eliminate toxic/morbid material from the upper gastro-intestinal tract. The objectives of emesis are as follows:

- To manage gastro-intestinal diseases
- To manage diseases like Headache, Migraine, Melancholia etc.

Diaphoresis (*Ta'rīq*)

Diaphoresis (*Ta'rīq*) is a process of induced sweating. It is instrumental in liquifying the sticky and adherent humours lodged in the peripheral tissues. The objectives of diaphoresis are as follows:



- To excrete the waste matter from the skin
- To reduce the excessive heat
- To divert the morbid material from kidney to the skin
- To purify blood
- To improve dermal nutrition and enhance body texture

Cauterization (*Kayy*)

Cauterization (*Kayy*) is an effective method of treating several conditions *e.g.* destructive lesions, removal of putrefactive matter, stoppage of bleeding etc. Unani physicians have been using this method over the centuries. The instrument used for cauterization is called as cautery (*Mikwā*), preferably made up of gold.

Concoctive and Purgative (*Mundij o Mushil*) Therapy

It is the main method of treatment for the chronic diseases in Unani System of Medicine. It is actually meant for evacuation or elimination (*Istifrāgh*) of morbid humours from the body. Morbid humours are mainly responsible for aggravating the disease process if they remain stagnant in the body. Abnormal humours are evacuated from the body by a method known as *Istifrāgh*. Sometimes the matter is too thick or too thin to be eliminated properly. Therefore, some drugs are used that change the consistency of the morbid humour and make it suitable for elimination. Such drugs are known as concoctives (*Mundijāt*). For each humour, specific concoctive drugs are used to make the morbid humour able to be evacuated. For example, in phlegmatic diseases *Lavandula stoechas* (*Ustūkhūdūs*) is used as a concoctive. Once the features of '*Nudj*' are established in the respective humour, it is followed by purgation (*Ishāl*).

Psychiatric Treatment ('*Ilāj Nafsānī*): Unani System of Medicine has emphasized the importance of psychiatric and psychological factors including spiritual values in the management of various diseases. The therapy compliments conventional medicine by treating the whole person - mind, body and spirit. This therapy has been described under the heading of Psychiatric Treatment ('*Ilāj Nafsānī*'). The benefits of the therapy may be felt on physical and emotional level. Unani physicians have described the psychiatric treatment for various psychotic and psychosomatic disorders such as Anxiety neurosis. However, Unani System of Medicine uses drugs very effectively in Psychiatric Diseases. This is so because the Unani counterpart of Mind is Psychic Pneuma (*Rūh Nafsānī*) which is made up of subtle matter and possesses Temperament. Therefore, the psychiatric diseases are characterized by various pathological Temperaments and can be easily treated by drugs of opposite Temperament.



4.2 DIETOTHERAPY

Unani System of Medicine lays great stress on treating certain ailments by administration of specific diets or by regulating the quality and quantity of food. In addition to nutritional properties, various foods have pharmacological actions too. For example, many foods are laxative, diuretic and diaphoretic.

The weakness of certain organs is corrected by administering the same organ of an animal by way of food; for instance, disorders and weakness of liver are treated by including the goat liver in the patient's diet. Likewise, heart, kidney and brain are recommended in the respective organ's treatment.

4.3 PHARMACOTHERAPY

According to Unani System of Medicine, the choice of drugs for treatment is governed by three laws: (i) Quality of drug in terms of Temperament, (ii) Quantity of drug in terms of its weight and potency and (iii) Time of administration. The selection of drug depends on the nature and type of the disease. The proper drug is that which is contrary to the nature and qualitative pattern of the disease i.e. its pathological Temperament. The weight and potency of the drug is determined by the nature of the organ; severity of the disease; and other related factors such as sex, age, weight, habit and habitat, season, built, previous treatment, and stage of the disease.

The Unani System of Medicine states that the drugs have their own particular temperament due to their specific constituents. Concoctive drugs (*Mundij Adwiya*) are used to prepare the morbid matter for excretion, whereas Purgative drugs (*Mushil Adwiya*) are used to remove morbid matter through intestine.

Unani drugs are used in different forms e.g. Powder (*Safūf*), decoction (*Joshānda*), infusion (*Khīsānda*), tablet (*Qurs*), semisolid preparations (*Jawārish*, *Ma'jūn*, *Khamīra* etc.). In '*Ilāj bi'l-Ḍidd*', drugs having qualities and temperament opposite to those present in the diseases should be administered. '*Ilāj bi'l-Dawā*' has been described in detail in Chapter 5 entitled 'Drugs'.

4.4 SURGERY

Surgery (*Ilāj bi'l-Yad*) has always been a part of treatment in Unani System of Medicine since ancient times. Abū al-Qāsim al-Zahrāwī, an Arab Unani physician, wrote a book entitled *Kitāb al-Taṣrīf li-man 'ajiza 'ani'l-Ta'līf* with illustrations of surgical instruments (Figure 21), consisted of 30 volumes on topics of medicine, surgery, pharmacy and other health sciences. The last volume, comprising of 300 pages, is dedicated to Surgery. He treated Surgery as a separate subject for the first time in the history of Medicine. He described



several procedures, inventions, and techniques, including thyroidectomy, extraction of cataracts, removal of kidney stones, tonsillectomy, tracheotomy, craniotomy, caesarian section, dentistry etc. In Unani System of Medicine, certain categories of drugs are used in cases needing surgical interventions, e.g. antiseptic drugs (*Dāfi ‘-i Ta‘affun Adwiya*) - *Cinnamomum camphora* (*Kāfūr*), *Azadirachta indica* (*Nīm*), *Santalum album* (*Ṣandal*) etc.; Styptic drugs (*Ḥābis-i Dam Adwiya*) - Alum (*Shibb Yamānī*), *Quercus infectoria* (*Māzū*), *Polygonum bistorta* (*Anjibār*) etc.; Wound healing drugs (*Mudammil-i Qurūḥ Adwiya*) - *Dracaena cinnabari* (*Dam al-Akhwayn*), Soap stone (*Sang Jarāḥat*), Red Ochre (*Gerū*) etc.; Anaesthetics (*Mukhaddir Adwiya*) - *Datura innoxia* (*Jawz al-Māthil*), *Hyoscyamus alba* (*Ajvā ‘in Khurāsānī*), *Lactuca sativa* (*Kāhū*) etc.; Analgesics (*Musakkin-i Alam Adwiya*) - *Colchicum autumnale* (*Suranjān*), *Conium maculatum* (*Shūkrān*), *Syzygium aromaticum* (*Qaranfal*); and Cicatrizants (*Khātim Adwiya*) – calcified shell (*Ṣadaf Sokhta*), Slaked lime (*Āhak Maghsūl*), Nummulite (*Shādinaj*) etc.



Figure 21: A page from book *Kitāb al-Taṣrīf li-man ‘ajiza ‘ani’l-Ta‘līf* showing some surgical instruments.