



## Pharmacological Concepts of Temperament in Iranian Traditional Medicine

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### Dear Editor-in-Chief

According to the literature available on Iranian traditional medicine (ITM), elements (fire, air, water, soil) are small bodies indivisible to different components and are essential constituents of human and non-human beings. Warmness, coldness, wetness and dryness are the basic qualities that each of the elements has a pair of them: fire is warm and dry, air is warm and wet, water is cold and wet, and soil is cold and dry. After action and reaction of these four elements, a homologous quality/qualities will be dominant in composite objects which is called temperament. In this viewpoint medicines like other substances are based on the four mentioned elements and have their own specific temperaments. In fact, medicines affect our body by their qualities of warmness, wetness, dryness and coldness (1). Medicines are divided into two categories of moderate and immoderate. The criterion for this division is a moderate body. A medicine, which does not cause any changes in a moderate body's quality, is called moderate; otherwise, it is immoderate (2). Immoderate medicines are graded into four degrees with different properties as follows:

- First degree: a low dose of medicine does not produce any dominant quality in the body and

more and repeated doses of it will make minor changes in body's quality.

- Second degree: a low dose of medicine produces a dominant quality in the body, and more and repeated doses of it will not cause any harm.

-Third degree: a low dose of medicine produces a dominant quality in the body and more and repeated doses of it will harm the body but it will not be lethal.

-Forth degree: the medicine is lethal (3).

Comparison and analogy are the two primary ways in ITM to determine a medicine's temperament. According to Avicenna viewpoint, there are seven rules for determination the temperament of medicines through experience including: 1) the medicine should be free from acquired qualities. 2) The experiment should be based on a simple disease (with one cause). 3) The medicine should be tested on diseases with opposite temperaments. 4) Quality and quantity of medicine should be in proper proportion to the nature and severity of the disease. 5) When a medicine is proved effective, the time it takes to work should be noted. 6) The action of the medicine should be continuously followed. If the action of medicine is continual and the same in all or most of the cases, it will be inherent. 7) The experiment should be con-

ducted on humans not animals, because of different effects and properties of medicines on each of them (1). Aqhili believes that according to recommendations of former physicians such as Hippocrates, safety of medicines must be determined before performing any direct experiments on humans. At first, physicians must pay attention to the smell and taste of the medicine. If it was extremely unpleasant, it would be tested on animals like apes, which their temperament is similar to humans and they also don't eat toxic substances. The tested animal should be under observation for three days while it has adequate food and water. It is better if this test gets repeated several times. After these experiments, that medicine can be tested on humans gradually from lower doses to higher doses (3). For analogy, traditional physicians considered different parameters including: 1) Conversion (into fire and getting warmer) and congelation speed and delay; for example from two substances with equal constituents, porosity and density, the one which becomes cold or warm sooner is colder or warmer. 2) Tastes: there are

eight different tastes including: pungent, bitter, salty, sour, astringent, acrid, sweet and greasy. Some of physicians consider tasteless as the ninth taste (1). Diversity of tastes is because of their different substances and potency (3). Each of the substance and potency has three categories, so nine types of tastes can be formed (Table1). Each taste has its own temperament and action. It must be noted that there are some exceptions in relation to tastes such as opium, which has a bitter taste, but its temperament is very cold. 3) Odor: by paying attention to substance's smell one can realize the quality and temperament of objects. Smells of acute, weak and mild respectively indicate hot, cold and moderate temperaments. 4) Color: every color is associated with a special temperament. Blackness, whiteness, redness, greenness and yellowness respectively are signs of heat, coldness, moderation, coldness and dryness, and, heat and dryness. However, appealing to colors (for temperament diagnosis) is weaker than odors. For example, a mixture of two substances can be white in color whereas its temperament is hot (3).

**Table1:** Different tastes in ITM

Substance	Potency		
	Hot	Cold	Moderate
Soft	Pungent	Sour	Greasy
Dense	Bitter	Acrid	Sweet
Moderate	Salty	Astringent	Tasteless

In ITM, temperament is the basic concept in diagnosis and treatment of diseases. Iranian traditional physicians, while considering the incidental temperaments of their patients and characteristics of a normal temperament, would try to prescribe medicines with opposite temperaments (1). In fact traditional physicians recognized the uniqueness of individuals by paying attention to their temperament, hence used personalized medicines. Today's medicine response diversity in individuals is the main problem of clinicians which leads to treatment failure or adverse effects of medicines (4), and modern physicians in personalized therapy use some information about a person's genes, proteins, and environment to prevent, diagnose,

and treat diseases (5). This study shows that ancient Iranian physicians by considering of persons' and medicines' temperaments have been represented special viewpoints in personalized therapy. Our knowledge regarding the viewpoints and principles of ITM is so little and further studies based on evidence are required to evaluate these viewpoints.

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