

## POISONS AND ANTIDOTES IN UNANI SYSTEM OF MEDICINE

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By trial and error and later through folk-lore, the useful drugs were differentiated from others including the poisonous ones, by primitive men. The concept of poison in Unani System of Medicine is quite old and a number of drugs have been included in the list of poisons. Round about seventy drugs have been mentioned in the Unani literature and about fifty drugs as antidotes.

In this paper the concept of Unani and Modern system of Medicine regarding the poisons and antidotes are discussed. Their mechanism of action has also been reported. It also includes the list of poisons and antidotes of plants, animals and mineral origin. The identity of these drugs has also been established.

The primitive man differentiated the useful plants from others including poisonous ones, by trial and error and later through folk-lore, and these were included in the Unani system of medicine. Hence, it appears that the concept of poison is very old. Along with poisons, the antidotes were also discovered to neutralise the effect of poisons. This system of medicine includes about seventy drugs as poisons and fifty as antidotes (See list).

The poison is defined as a substance which produces ill health, disease or death after administration by mouth, inhalation, through skin contact or by any other possible route (e.g. opening of wounds). It may be of synthetic, mineral, animal or vegetable origin. An antidote is a remedy which counteracts the effect of poison or poisons by mechanical, chemical or physiological means. According to Unani concept, poison causes death by lowering or raising the body temperature upto lethal level (*kāi-fiat*), or by decreasing the energy due to the disturbance in the metabolic activity (*mā-addā*) or by (*surāt-i-nāvuyyā*) which is not clearly defined.<sup>1</sup>

Regarding antidote *Shirāzi*<sup>2</sup> mentioned that a substance which antagonises the effect of poison or poisons completely or partially, is known as antidote, whereas, according to *Arzāni*<sup>3</sup> antidote counteracts the effect of poison. He also included those drugs which were used for the treatment of nervous diseases, e.g. *fād-i-zāhār-haivānī*, *tiryāq-i-Nazlā*, *tiryāq-i-arbā* and *īryāq-i-Fārūq*.

Hakīm Mohammād Husain (son of Mohammād Hādī Uqaite Khūrāsānī Shirāzī, and the son of the sister of Hakīm 'Alvī Khān, compiled the formulary of his maternal grand father and gave it a new name *Qarābādīn-i-Kābīr*)<sup>4</sup>, mentioned three types of poisons. The first group of poison causes sudden death, without lowering or raising the body temperature (*hārā-rat*) upto lethal level (*sūrat-i-navayyā*). This type of poison acts within no time and known as absolute poison and includes the "*Kuchla*", (*Aconitum hetrophyllum*), gall bladder of cobra and panther. The second group are those which act by lowering or raising the body temperature upto lethal level (*kuī-fiat*) or by disturbing the metabolic activity (*mā-addā*) due to the disturbance of balance of energy, oxygen and body fluids, e.g. opium. The third group have some nutritional values and does not have any acute effect. It acts by (*mā-uddā*) are by (*sūrat-i-nāvayyā*). In *Shārh-i-Qcnūr*<sup>5</sup> a fourth group is also included, which cause death after reaching to a particular organ. For example *jārārih* causes death when reaches urinary bladder through kidney.

Hakīm Ahmad<sup>6</sup> in *Kitāb-as-Sāmūm* mentioned that the age, habit, health and temperament (*Mizāj*) are some of the important factors which can modify the action of poisons. He further noted that children die more quickly than adults and old persons, whereas, the adults can survive for a longer period than the old persons. Addicted persons can tolerate the amount of poisons which is lethal dose for normal persons, and healthy persons have much tolerance in comparison to those having ill health.

The tolerance of a poison also varies from man to man. It is noted that a particular man can tolerate a particular poison even above the lethal dose probably due to temperamental condition of the person as well as poison.

While discussing the poisons it is also necessary to deal herewith the different measures and treatments of different poisons adopted by the physicians of medieval period.

*Arzānī*<sup>7</sup> has mentioned that the emetic measures are the first step of the treatment. For this purpose warm water, sesame oil, and the decoction of *Anethum šowa* (Dill) are given in large quantities. The use of ghee, butter and milk to neutralize the effect of poisons are the second step. The use of purgatives, diuretics and those drugs which normalise the respiration, circulation of blood and body temperature are the third step.

After these measures the physicians try to find out the nature of the poison by different means, e.g. smell of mouth, examination of vommitted material and with the help of symptoms produced. The symptoms of some of the important poisons namely, mercury and opium are:

Mercury will produce irritation, ulceration and spasmodic pain. *Euphorbia resinifera* will produce inflammation, thirst, redness of face, yellowness of the sclera of eye, bad smell of mouth and excess sweating. Opium will produce more sleep, senselessness and narcotic action. After diagnosis of the type of poisons they give the proper antidotes along with such substance which can normalise the caloric value (*hārārāt-i-ghārīzī*) and increases the body immunity (*tābiyāt-i-muddabbār-i-bādān*).<sup>8</sup>

Hence it appears that while dealing with the poisons, six important points were taken into consideration by unani physicians. They are *mizāj*, *tābiyāt*, *hārārāt-i-ghārīzī*, *mā-cddā*, *sūrāt-i-navayyā* and *kāi-fiāt*. While comparing these points with the modern concept it appears that the *mizāj* is very much related to allergy. In Unani system of medicine, a drug can be administered to a patient after considering the *mizāj* (temperament) of the patient as well as of drug. A particular drug, food or any other stuff which is generally beneficial may be harmful to others. The same condition occurs in the case of allergy producing materials. Body immunity is another important factor in the treatment of various fatal diseases on the principle "Prevention is better than cure". And this method is adopted to support the body to fight against the foreign body, e.g. administration of A. T. S., A. D. S., B. C. G. and Triple antigen etc. or use of antibiotics to support the W. B. C. for defence against bacterial infections. This is similar to that of the unani concept of "*tābiyāt*" which is responsible for the defence of the body. Caloric value provides energy to the body and quantity of the ingredient of the food (carbohydrates, fats, proteins, minerals, vitamins and water) has been fixed according to requirements of the body.

Deficiency in this value causes weakness, disease or even death and is in accordance with the concept of "*hārārāt-i-Ghārīzī*" which is responsible for health and life in the Unani system. Some drugs or poisons lower the normal body temperature whereas some raise it. In the same way some drugs or poisons cause dryness probably by inhibiting the glandular secretion and some cause wetness perhaps by stimulating the endo- or exocrine secretions. These drugs or poisons are said to act by their "*kāi-fiāt*" according to the Unani concept. The disturbance in the metabolic activity is one of the factors of death or disease, which finally affects the energy and body fluids. This theory is very much related to *mu-cddā*. Regarding *sūrāt-i-navayyā* we can say that it is an unknown factor and cannot be defined.

#### LIST OF POISONS OF UNANI SYSTEM OF MEDICINE

S. No.	Unani name	English name	Part used	Scientific name	Lethal dose
1.	<i>Afeyun</i>	opium	latex	<i>Popave somniferum</i> Linn.	4 grains
2.	<i>Asbghal-Siyah</i>	—	seed	<i>Plantago</i> species	uncertain
3.	„ <i>Madquque</i>	—	seed	<i>Plantago</i> species	„

4.	<i>Agrab</i>	scorpion	—	—	—
5.	<i>Ajwain Khurasani</i>	hyoscynus	leaf	<i>Hyoscynus nigar</i> Linn.	2 gms.
6.	<i>Bachnak</i>	aconite	root	<i>Aconitum heterophyllum</i> Wall	15 grains
7.	<i>Bekh Kaner</i>	nerium	root	<i>Nerium indicum</i> Mill.	uncertain
8.	<i>Bhang</i>	hemp	flower top	<i>Cannabis sativa</i> Linn.	„
9.	<i>Bhangra</i>	—	whole plant	<i>Eclipta alba</i>	„
10.	<i>Biladur</i>	—	fruit	<i>Semicarpus onacardium</i> Linn.	144 grains
11.	<i>Charas</i>	hemp	resin	<i>Cannabis sativa</i> Linn.	uncertain
12.	<i>Chuna</i>	lime	—	Calcium oxide	„
13.	<i>Dhatura</i>	stramonium	leaf	<i>Datura stramonium</i> Linn.	„
	„	„	seed	<i>D. innoxia</i> Mill.	„
	„	„	„	<i>D. metal</i> Linn. etc.	„
14.	<i>Ferfeyun</i>	—	plant	<i>Euphorbia resinifera</i> Berg.	„
15.	<i>Gharigun Siyah</i>	—	—	<i>Polyporus officinalis</i> Fries.	„
16.	<i>Habus-Salateen</i>	croton	seed	<i>Croton tiglium</i> Linn.	$\frac{1}{2}$ dram
17.	<i>Hara-Kaszes</i>	—	—	Ferrous sulphate	uncertain
18.	<i>Hartal</i>	arsenic	—	Arsenic-trisulphate	2-4 grains
19.	<i>Jund-e-Badaster Siah</i>	castorium	male organ	—	uncertain
20.	<i>Jo -Masal</i>	—	—	<i>Datura fastuosa</i> Linn.	—
21.	<i>Jadwar-Talkh</i>	—	root	<i>Delphiniumazacis</i>	—
22.	<i>Kafe-Darya</i>	ossepias	—	—	—
23.	<i>Kharbak Siah</i>	—	root	<i>Helleborus niger</i> Linn.	$\frac{1}{2}$ dram
24.	<i>Kharbak Sabh</i>	—	root	<i>Helleborus viridis</i> Linn.	1 dram
25.	<i>Kharbak Safzid</i>	—	root	<i>H. ambrosima</i> Linn.	18 grains
26.	„ <i>Badnoodar</i>	—	root	<i>Cimifuga foetida</i> Linn.	30 grains
27.	<i>Kuchla</i>	nux-vomica	fruit	<i>Strychnos nuxvomica</i> Linn.	$\frac{1}{4}$ - $\frac{1}{2}$ gram
28.	<i>Madar-ka-doodh</i>	—	latex	<i>Calotropis gigantea</i> Linn.	uncertain
29.	<i>Murdar Sunkh</i>	—	—	Plumbus oxide	1 ounce
30.	<i>Nag-Kesar</i>	—	flower's essence	<i>Ochrocarpus longifolius</i> <i>Mesna ferrea</i>	uncertain
31.	<i>Para</i>	mercury	—	—	35 grains
32.	<i>Piaz-Dasti</i>	—	bulb	<i>Urginea Scilla</i>	24-75 „
33.	<i>Qust-Talkh</i>	—	root	<i>Saussurea lappa</i> C. B. Clarke	uncertain
34.	<i>Ranga</i>	stanum	—	—	1 ounce
35.	<i>Raskapoor</i>	calomel	—	<i>Hydrargyri subchloridum</i>	40 grains
36.	<i>Sabun</i>	soap	—	—	uncertain
37.	<i>Safeda-Kashgiri</i>	—	—	Zinc oxide	$\frac{1}{2}$ -1 ounce
38.	<i>Sammul-Far</i>	arsenic	—	—	2 grain
39.	<i>Sanp</i>	snake	venom	<i>Echis carinata</i>	15 mg.
40.	<i>Satayanas</i>	argemone	seed oil	<i>Argemon maxicana</i>	uncertain
41.	<i>Saqmunia (Ghair-mashvi)</i>	—	stem	<i>Convolvulus Scamonia</i>	„
42.	<i>Seesa</i>	lead	—	—	„
43.	<i>Sangaraf</i>	—	—	Mercuric sulphide	40-60 grams
44.	<i>Shokran</i>	—	root	<i>Conium maculatum</i> Linn.	uncertain
45.	<i>Shibt-muhrak</i>	—	fruit-ash	<i>Anethum Sowa</i>	„
46.	<i>Suhaga-Danda</i>	borax	—	Sodium tetraborate	30 grains
47.	<i>Suranjan Tulkh</i>	—	root	<i>Calchicum lateum</i> Baker	100 mg.
48.	<i>Surmasiah</i>	—	—	Lead sulphate	10 grains
49.	<i>Tendua</i>	panther	Gallbladder	<i>Panther pardus</i>	uncertain
50.	<i>Tutia</i>	—	—	Copper sulphate	1 ounce
51.	<i>Yubru-jussanam</i>	—	root	<i>Mandragora officinarum</i> Linn.	1 dram

52.	<i>Zangar</i>	—	—	Cupric subacitate	½ ounce
53.	<i>Zarareeh</i>	cantherides	whole animal	<i>Malabristrianthema</i>	24 grains
54.	<i>Zange-hadid</i>	iron dust	—	—	uncertain
55.	<i>Zahar-sheerin</i>	—	root	<i>Accnitum ferox</i> wall	20-30 grains
56.	<i>Zanar telia</i>	a. <i>Kaldar</i> b. <i>Mankan</i> c. <i>Sarang</i> d. <i>Halahal</i>	root	<i>Aconite</i>	25-30 grains

## THE UNIDENTIFIABLE UNANI POISONOUS DRUGS

1. *Arnab-Bahri*
2. *Asfeedaj*
3. *Arq-Daba*
4. *Ghook*
5. *Husne Yousuf*
6. *Kamat-Siyah*
7. *Meenasal*
8. *Pnen-chatar*
9. *Qurnul-Nable*
10. *Sang-Kag*
11. *Zamboor*
12. *Zuj-Asfar*
13. *Zanbul-Ail*

## LIST OF ANTIDOTES OF UNANI SYSTEM OF MEDICINE

S. No.	Unani name	English name	Part used	Scientific name	Antidotal dose
1.	<i>Afsanteen</i>	artemisia	whole plant	<i>Artemisia absanthium</i> Linn.	8 gms.
2.	<i>Asabghol</i>	—	mucilage	<i>Plantago ovata</i>	10 gm
3.	<i>Badam</i>	almond	oil	<i>Prunus amygdalus</i> Batsch	20 gm
4.	<i>Baiz-e-Murgh</i>	egg of hen	yellow yolk	<i>Gallus domestieus</i>	sufficient quantity
5.	<i>Baraf</i>	ice	—	—	-do-
6.	<i>Bittikh</i>	melon	seed	<i>Cucumis melo</i> Linn.	-do-
7.	<i>Chune-ka-pani</i>	lime water	—	—	-do-
8.	<i>Dawaul Misk</i>	a poly-pharmaceutical preparation	—	—	10 gms
9.	<i>Doodh</i>	milk	—	—	sufficient quantity
10.	<i>Fafeyun-e-Mudabbar</i>	—	resin	<i>Euphorbia resinifero</i>	10 gms.
11.	<i>Filfile siyah</i>	pepper	fruit	<i>Piper nigrum</i> Linn.	5 gms.
12.	<i>Findak</i>	—	kernal of seed	<i>Corylus avellana</i> Linn.	10 gms.
13.	<i>Fodnoj</i>	mint	root	<i>Mentha arvensis</i> Linn.	10 gms.

14.	<i>Fodnaj Kohi</i>	—	whole plant	<i>Mentha</i> sp	10 gms.
15.	<i>Gille-Makhtoom</i>	clay collected from 'Makhtoom'	—	—	10 gms.
16.	<i>Gulab</i>	rose	flower and oil	<i>Rosa indica</i> Linn.	10 gms.
17.	<i>Goolar</i>	—	fruit	<i>Ficus glomerata</i>	sufficient quantity
18.	<i>Habul Aas</i>	myrte	fruit	<i>Myrtus communis</i> Linn.	10 gms.
19.	<i>Hilteet</i>	asfoteda	resin	<i>Feaula foetida</i> Reyel	1 gm.
20.	<i>Habbul Gnar</i>	—	fruit	<i>Laurus nobilis</i>	10 gms.
21.	<i>Jadwar Sirini</i>	—	root	<i>Delphenium nudatum</i> Wall	2 gms.
22.	<i>Jund Bedastar</i>	surkh castorium	—	—	2 gms.
23.	<i>Juntianan</i>	gentian	root	<i>Gentiana lutea</i>	5 gms.
24.	<i>Kafoor</i>	camphor	—	—	1 gm.
25.	<i>Karafs</i>	—	seed	<i>Apiumgranatum</i>	10 gms.
26.	<i>Karanj</i>	—	seed	<i>Pongamia glabra</i> Vent.	5 gms.
27.	<i>Khaskhas</i>	poppy	seed	<i>Papava somiferum</i> Linn.	10 gms.
28.	<i>Khabbazi</i>	—	seed	<i>Malvarotundifolia</i> Linn.	10 gms.
29.	<i>Khurfa</i>	—	seed	<i>Portulaca Olaracea</i> Linn.	10 gm.
30.	<i>Maul-Aasl</i>	honey	—	<i>Water of honey</i>	sufficient quantity
31.	<i>Makkhan</i>	butter	—	—	"
32.	<i>Mure-Makki</i>	—	resin	<i>Commiphora myrrha</i>	10 gms.
33.	<i>Mushk</i>	musk	—	<i>Moschus moschieferus</i>	2 gms.
34.	<i>Pista</i>	—	kernel of seed	<i>Pistacia vera</i> Linn.	15 gms.
35.	<i>Safar Jalee</i>	—	a poly-pharmaceutical preparation	—	10 gms.
36.	<i>Sambnalū</i>	—	seed	<i>Vitex negundo</i> Linn.	10 gms.
37.	<i>Sandal</i>	sandal	wood	<i>Santalum album</i> Linn.	10 gms.
38.	<i>Sartan Nehri</i>	crab	whole animal	<i>Scilla serrata</i>	5 gms.
39.	<i>Shahad</i>	honey	—	—	sufficient quantity
40.	<i>Sharab</i>	wine	—	alcohol	-do-
41.	<i>Sikanjbeen</i>	—	a poly-pharmaceutical preparation	—	-do-
42.	<i>Sirka</i>	—	—	acetic acid	Q. S.
43.	<i>Shaham</i>	fat	—	—	-do-
44.	<i>Suddab Jangli</i>	—	seed and leaf	<i>Euphorbia Lathyrus</i> Linn.	5 gms.
45.	<i>Tiryqa-e-Arba</i>	—	a poly-pharmaceutical preparation	—	10 gms.
46.	<i>Tiryqa-e-Faroo</i>	—	—	-do-	-do-
47.	<i>Tiryqa-e-Mashroodi toos</i>	—	—	-do-	-do-
48.	<i>Zaravande Mudahraj</i>	—	root	<i>Aristolochia longc</i>	10 gms.

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