

THERAPEUTIC PRINCIPLES OF LIVER DISEASES IN UNANI MEDICINE

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Abstract: Background: Unani System of Medicine has been treating liver diseases since centuries under the aegis of principles, which advise usage of specific drugs or therapy for a particular disease including liver diseases. **Purpose:** To review the therapeutic principles along with Unani drugs documented in the treatment of liver diseases. **Data Sources::** Urdu and English version of Unani literary books were utilized. Original e-research papers were used as databases. **Limitation::** The present paper only ascribed therapeutic principles of liver disease mainly. Although some important hepatoprotective drugs have also been elucidated in this paper. **Result & Conclusion:** According to the Unani Medicine, the pathological changes in the liver are caused mainly by derangement in the temperament of humours and accumulation of *mawad-e-fasida* (morbid material). So therapeutic measures aims at, restoring the equilibrium of various elements by counteracting the effect of pathological temperament existing at the time of disease with medicines and diet, supported with *Ilaj bit-tadbeer* (regimenal therapy) and then expulsion of *raddi akhlat* (morbid humours) by *istafraag* (evacuation) from the body. Kasni (*Cichorium intybus*), Ward (*Rosa damascene*), Zafran (*Crocus sativus*) and others, have been proven for their hepatoprotective activity in animal models.

Keywords: Abnormal temperament Liver, Complementary medicine, Hepatoprotective drugs, Sue Mizaj, Unani hepatoprotective, Unani medicine,

Introduction

Liver is the largest and unique organ, considered as source of *hararat-e-ghariziya* (innate heat) for body. So it was discussed much widely in Unani literature (Ishtiyag Ahmad, 1983).^[3] Galen, (129-217 AD) even stated liver counterpart with sun, a source of energy for others planets.^[4] The basic functions are conveniently grouped under

- (1) vascular functions
- (2) excretory and secretory functions
- (3) metabolic functions and
- (4) detoxifications functions.^[2]

In Unani Medicine (Greco-Arab Medicine), liver is an organ for production of *akhlat* (humours) and its four vital powers (*quwaa*) namely *quwat-e- jaziba* (power of absorption), *quwat-e- ghaziya* (power of digestion), *quwat-e-*

masikah (power of retention) and *quwat-e- dafiya* (Power of excretion) perform all the functions related to liver. The derangement of function of any of these four powers, produces derangement in temperament of humours. Moreover, deranged temperament of the humours leads to accumulation of *mawad-e-fasida* (morbid material) and ultimately pathological changes in the liver. The derangement of temperament of humours may be simple (*saada*) which need simple therapeutic measures or it may be compound (*maddi*) in which organic disturbance and quantitative changes take place in the liver cells. (Rabban Tabari, 898 AD) ^[6]

A number of liver diseases are mentioned in Unani Medicine, such as ^[8, 9]

Su-e- Mizaj (Abnormal/ Pathological temperament of the Liver),

Zauf-e Jigar (Dullness of Liver ^[8], Hepatosis or Hypocholeretic),^[10]

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Sudda-e-Jigar (Hepatic obstruction),^[10]
Dard-e-Jigar (Hepatalgia),^[10]
Warm-e-Jigar (Hepatitis),^[8, 9, 10]
Zarba-e-Jigar (Trauma),
Dabila-e-Jigar (Hepatic Abscess),^[8]
Segar-e-jigar (Cirrhosis of Liver),^[8]
Su-ul-Qinaya (Anemia)^[8, 10] and
Istiska (Ascites).^[8, 10]

General Principles of Treatment

According to the Avicenna (1037 AD), while treating liver diseases, the *tabeeb* (physician) must know what is the normal temperament of the liver in that patient. Afterward, physician should assess the pathological temperament based on sign and symptoms, mentioned for respective type of *su-e-mizaj* and then accordingly use his skill to counteract the effect of pathological temperament (*tadeel-e-mizaj*) existing at the time of the disease^[2, 9] but this counteraction must not be pushed extensively.

In case of *sudda-e-jigar* (hepatic obstruction), try to relive the obstruction with the help of deobstruents (*muftta-eh—sudad*)^[9] such as *Gentiana olivieri* (Ghafis), *Sphaeranthus indicus* (Izkhar), *Coriandrum sativum* (Razyana/ Dhanaya), *Cuscuta reflexa* (Kasoos), *Lupinus albus* (Turmus) and *Sphaeranthus indicus* (Mundi).^[1]

If dullness occur in any of four *quwaa* (vital forces) or to empower the liver (*islah*), treatment should be provided with the drugs which essence like perfumes^[1, 9] along with property of diuresis, astringent and deobstruent such as *Cinnamomum zeylanicum* (Darchini)^[7, 9]. Avicenna (1037 AD), particularly mentioned medicines with bitter taste, were mentioned favorable for liver e.g. *Commiphora myrrha* (Mur makki).

Tila and Zimad (Liniments and Ointments)^[11] were described briskly effective but were advised to use with cautions and should not be manipulated before *tankiya* (evacuation).^[9]

Cichorium intybus (Kasni) and its other varieties, especially the bitter one, taken simply or as decoction (*joshanda*) or in the form of crushed juice (*khisandah*) was stated effective in all type of liver diseases. However in the case of extreme coldness in temperament of liver (pathological temperament), cichorium was advised to be consume mixed with honey.^[9]

According to Hippocrates (460-372 BC) and Galen (129-217 AD), *muqawwi-e-Jigar* (hepatoprotective/ liver tonics) drugs should be used along with other medicines.^[4] Some *muqawwi Jigar* (hepatoprotective/ liver tonics) drugs, mentioned in *Al-Qanoon* which have been proven for their hepatoprotective effect Except Luk (*Coccus lacca*) are given in the **table 1** below^[1, 12, and 13].

Avicenna [1037 AD] and other scholars also mentioned that worthiest time to take medicine in liver disease is, when the food has past the stomach and reaching toward the liver for further digestion or metabolism. Avicenna [1037 AD] also stated that during correction of temperament, providing extensive coldness endanger the possibility of anasarca or ascites and too much warmth/ hotness put vulnerability of *zabol* (atrophy of liver).^[1]

Razes [930 AD] in *Alhawi*, Avicenna [1037 AD] in *Al-Qanoon* and Azam khan in *Akseer-e-Aazam*, have documented principles about evacuation of the morbid material (*istafraag*) that it relies on morbid material (*madda*) position with respect to liver curvature. If morbid material (*madda*), present in concave portion of Liver, it is

Table 1: *Muqawwi Jigar* / Hepato protective drugs (Liver Tonics) in Unani Medicine.

Sr. No	Unani Name	Scientific Name (Family)	Common English Name	Temperament	Reference
1.	<i>Gule Surkh</i>	<i>Rosa damascene</i>	Rose	Cold 1, Dry 1	[1, 9, 14]
2.	<i>Zafran</i>	<i>Crocus sativus</i>	Saffron	Hot 1, Dry 1	[1, 15]
3.	<i>Luk</i>	<i>Coccus lacca</i>	Luciferra lacca *	Hot 3, Dry 3	[1]
4.	<i>Darchini</i>	<i>Cinna. zelanicum</i>	Cinnamon	Hot 3, Dry 3	[1, 16]
5.	<i>Zarishk</i>	<i>Berberis vulgaris</i>	Berberberry	Hot 3, Dry 3	[1, 9, 7, 17]
6.	<i>Basbaseh Joze boa</i>	<i>Myristica fragrans</i>	Nutmeg	Hot 2, Dry 2	[1, 18]
7	<i>Joze boa</i>	<i>Myristica fragrans</i>	Nutmeg	Hot 2, Dry 2	[1, 18]
8.	<i>Qaranful</i>	<i>Syzygium aromaticum</i>	Clove	Hot 3, Dry 3	[1, 19]

*=Animal origin

wise to expel through gut by purgatives. He also stated that it would be risky to expel the same through gut, if present in the convexity of liver as it should be evacuated through urine with the help of diuretics. Moreover, the drugs intended for diuresis should be grind in very fine particles than for purgation. [1, 9]

Stuffs / things injurious for Liver- eating another meal before complete digestion of first meal & improper dietary habits such as drinking cold water shortly after a sexual act, bath (*hammam*) or exercise harms liver and may cause *istiska* (ascites). In unavoidable circumstances, sips of water or small quantity of wine added with not too much cold water could be taken. Mucilaginous drugs and alcohol are contraindicated and documented harmful, owing to their ability to produce obstruction in liver (*sudda*). [1]

Therapeutic principles in abnormal/ pathological Temperament of liver (*Su-e-Mizaj*)

Su-e-Mizaj Haar Jigar (Abnormal / Pathological Hot Temperament of Liver)

Excess of coldness is injurious to liver, potentiate obstruction (*sudda*). Mild to moderate frigorific drugs (*mubarrid adviyah*) with additional deobstruent (*mufattah*), detergent (*jali*) and mild astringent properties were advised [1, 7] e.g.

Cichorium intybus (Kasni)

Berberis vulgaris (Zarishk)

Tamarindus indicus (Tamarhindi)

Apium graveolens (Karafs) should be added additionally in compound formulations, in the presence of obstruction (*sudda*). Avicenna [1037 AD] proclaimed *Apium* a general deobstruent. [1]

Solanum nigrum (Mako) [4]

The extract of *Cichorium intybus* (*usarah-e-kasni*), *Physalis alkakengji* (*usarah-e-kakanaj*), *Solanum nigrum* (*usarah inab-us-salab/ Mako*) each two parts, fresh *Coriander sativum* (*usarah-e-kishneez tar*) and *Foeniculum vulgare* (*usarah-e-razyanaj*) each one and half parts and with addition of half part of *Crocus sativus* (*Zafran*) should be ingested. Oil of Rose and oil of *Pyrus malus* (*Tufah*) are frigorific locally, should be applied on liver area before ingestion of the above extract (*usarah*). [1, 5] Allamah Karshi in *Jamiul- Hikmat*, has additionally recommended, venesection (*fasd of bansleq/ abti*) or application of leech on skin over liver area or around the anus, in presence of congestion in the liver. [8]

Compound formulations of Unani Medicine (*murakab adviyah*) such as *qurs- e-tabasheer*,

qurs- e-zarishk and *qurs- e-kafoor* were also described as beneficial. [1]

Diet- barley water (*ma-ul-shaeer*) as a diet was documented highly advantageous and vegetable soup combined with *Cichorium intybus* (*Kasni*), *Solanum nigrum* (*Inbul Sa-al-lab/ Makoh*), Green Coriander and *Andropogon muricatus* (*Khas*) were also stated as beneficial. Beet root, sour curdled milk (*dahi*), whey water, fresh apple juice, *Punica granatum* (pomegranate), *Vitis vanifera* (grapes), mulberry, vinegar (*sirkah*), and not too sweet melons were indicated as a diet in liver diseases. Unless a patient with good digestive system, fatty oily foods, meat and boiled eggs were stated harmful in a patients of liver diseases. [5, 1]

Su-e-Mizaj Barid Jigar (Abnormal/ Pathological Cold Temperament of Liver)

Su-e-Mizaj Barid Jigar was mentioned, which produces *zauf-e jigar* (dullness of liver), *dard-e-jigar* (hepatalgia), *su-ul-qinaya* (anaemia) and *istiska* (ascitis). [9]. Compound formulations of Unani Medicine (*murakab adviyah*) such as *dawa-ul-kurkum*, *dawa-ul-luk*, *qurs-e-afsanteen*, [6], *majoon falaasfa*, *itrifal-e-kabeer*, [9] *tiryage kabeer* and *asanasaya* were stated hot in temperament. [4] So these drugs were used to counteract the coldness of liver which resulted in alteration (*tadeel*) of the disease condition and recovery.

The wine of *Artemisia absinthium* (*Afsanteen*) containing *Sikanjabeen* has been stated worthwhile by Avicenna [1037 AD]. Moreover, tablet of *Artemisia* at bedtime has been proclaimed to accentuate its effects. In severe cases of this disease *joshanda-e- sikanjabeen* along with ***Qurs-e- Luk*** should be administered. Decoction of *Artemisia* and *Saussuria lappa* (*Qust*) along with oil of almond and pistachio were mentioned also beneficial.

Ointment (*Zimad*) prepared from *Nardostachys jatamansi* (*Sumbulut-tibb*), *Metrocaria chamomile* (*Babunah*), *Andropogon schoenanthus* (*Izkhar*) along with rose flower should be applied locally on the skin over liver area.

Diet- easily digestible meat, especially roasted has been allowed. Dry fruits in small quantity were advised effective. [5]

Su-e-Mizaj Yabis Jigar (Abnormal/ Pathological Dry Temperament of Liver)

Vegetables and Drugs which are humectant (*murattib*) [10] along with local application of humectant ointments and liniments (*murattib zimad*

& oils) should be advised.^[1] *Papaver somniferum* (Khashkhash) has been mentioned for the treatment by *Ahmad bin Rabban Tabri*.^[4]

Su-e-Mizaj Ratab Jigar (Abnormal/ Pathological Wet Temperament of Liver).

Exercise, reduction in food and beverages and avoidance of liquid and liquid containing things have been constituted, the principles for treatment but also advised to avoid producing too much desiccation (*tajfeef*).

Su-e-Mizaj Haar Ybis Jigar (Abnormal/ Pathological Hot & Dry Temperament of Liver).

These patients should be treated with cold and moisture producing vegetables especially Endive (*Kasni*). Rice, spices and excessive pistachio should be avoided and respective liniments and ointments should be used locally.

Su-e-Mizaj Haar Ratab Jigar (Abnormal/ Pathological Hot & wet Temperament of Liver)

Humectants which possessed astringent property such as *ma-ul jibn* have been advised.

Su-e-Mizaj Barid Ratab Jigar (Abnormal/ Pathological Cold & wet Temperament of Liver).

Astringent (*kabiz*), demulscent (*mulattif*) and heat producing diets & drugs have been advised and if there were cold & moist morbid material, it has been advised that it should be evacuated (*istafraag*) gently either through *ma-ul usool quwi or ayyaraj*.^[1]

Su-e-Mizaj Barid yabis Jigar (Abnormal/ Pathological Cold and Dry Temperament of Liver).

Dawa-ul-luk, dawa-ul-kurkum and amrosiyah should be administered with *ma-ul-usool* and moist oils. Moreover, heat producing ointments should also be applied.^[1] Galen [129-217 AD] proclaimed treatment of *su-e-mizaj barid yabis jigar* and recovery toward health, a difficult one and also advised meat of one year goat's kid cooked in different ways should be used as it produces heat and moist in body.^[4]

CONCLUSION

The Unique features of liver and capacity for regeneration lead to its frequent discussion in Unani Medicine. According to the concepts of Unani medicine, the four vital forces (*quwaa*) of liver are responsible for metabolism. The derangement in these forces produces pathological changes via derangement in temperament of humours. So the treatment includes measures for correction of the deranged temperament, evacuation of the morbid humours and empowerment of liver.

Diet, drugs and regimenal therapy have been advised to achieve these aims. *Kasni* (*Cichorium intybus*) has been stated effective in all kind of liver diseases. Moreover, drugs which possesses property of astringent, diuresis and deobstruction (*mufftah-e-sudad*) such as *Apium graveolens* (Karafs), *Gentiana olivierii* (Ghafis), *Sphaeranthus indicus* (Izkhar), *Coriandrum sativum* (Razyana/ Dhanaya), *Cuscuta reflexa* (Kasoos), *Lupinus albus* (Turmus) and *Sphaeranthus indicus* (Mundi), have been advised strongly effective in liver diseases. Hepatoprotective drugs such as *Rosa damascene* (Ward), *Crocus sativus* (Zafran), *Cinnamomum zeylenicum* (Darchini), *Berberis vulgaris* (Zarishk), *Myristica fra-grans* (Joz Bua), *Syzygium aromaticum* (Qaranfal) have been proven for their potential hepatoprotective effects in various animal models except *Coccus lacca* (Luk), which still lacking consideration and should be tested for its hepatoprotective activity. So management with Unani single drugs, compound products and supportive therapy must follow the therapeutic paradigms. These principle's will check complications due to mismanagement, encourage administration of specific drugs (drug of choice) for a particular pathological condition, and promote research on Unani drugs mentioned in the literature for the treatment of the pathological state of liver.

Key Message

Liver diseases are considered as a serious health problem due to restricted healthcare resources in India. Management with Unani drugs, Natural products and supportive therapy must follow the therapeutic paradigms. This will avoid complication, allow administration of specific drugs (Drug of choice) for a particular pathological condition and encourage research on Unani drugs mentioned in the Unani literature for the treatment of the pathological state of Liver

Acknowledgments

We appreciate the cooperation of the Mr. Shahzad Ahmad, Librarian Mr. Bhopal and Library Assistants of Faculty of Medicine (Unani), Jamia Hamdard, New Delhi (India).

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