

TREATMENT OF ACUTE HEPATITIS A WITH UNANI MEDICINE: A CASE REPORT

Mohd. Khalid^{1*}, Arzeena Jabeen¹, M Abdul Mutalib² and Munawwar Husain Kazmi¹

¹Central Research Institute of Unani Medicine, Hyderabad, Telangana State.

²ZVM Unani Medical College & Hospital, Pune, Maharashtra.

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***Corresponding Author**

Dr. Mohd. Khalid

Central Research Institute of
Unani Medicine, Hyderabad,
Telangana State.

ABSTRACT

A 34-year-old woman presented with vomiting, right lower quadrant abdominal pain and icterus for 4 weeks. On physical examination, there was remarkable scleral icterus and moderate tenderness on palpation in the right lower quadrant of abdomen. Investigations revealed marked hyperbilirubinemia, transaminases, and hepatitis A antibody positive at the baseline.

KEYWORDS: Hepatitis A; Yarqan; Unani.

INTRODUCTIONS

HAV is a single-stranded RNA virus from Picornaviridae family. The first description of hepatitis (epidemic jaundice) is accredited to Hippocrates and many outbreaks of hepatitis A have been recognized for centuries, equally affecting the military and civilian populations.^[1] The infection occurs when an unvaccinated and uninfected individual ingests food or water contaminated with the faeces of an HAV infected person. The disease is closely linked with unsafe water or food, inadequate sanitation and poor personal hygiene.^[2] Hepatitis A is the most common form of acute viral hepatitis globally.^[3] Globally, 1.4 million cases of HAV occur annually.^[4] It is very common in developing countries like India. Most parts of India have high endemicity; although, a few pockets of lower sero-prevalence in high-income urban areas are emerging due to socio-economic development that is only a small portion of the total population of India.^[4] In India, viral hepatitis is now recognized as a serious public health problem. It places a huge disease, social and economic burden on the affected individual, family, as well as the health system.^[5] With the development of effective vaccine against HAV in the 1990s and improvement in socioeconomic conditions, epidemiology of hepatitis A has changed. The age group more affected has shifted from first decade to second

and third decade severity of disease, which was nearly asymptomatic or mild in children become symptomatic in adults.^[6] Symptoms of hepatitis A include fever, malaise, anorexia, diarrhoea, nausea, abdominal discomfort, dark-colored urine and jaundice.^[7]

Case Information

A 34-year-old woman with overall good health presented with fever, malaise, right lower quadrant abdominal discomfort, nausea and icterus for 4 weeks. The patient was a housewife of lower middle class. Physical examination revealed scleral icterus and mild tenderness on palpation in the right lower quadrant. There was no guarding or rigidity, and palpable hepatomegaly.

Investigations

The lab investigations revealed hyperbilirubinemia and high transaminases; total bilirubin was 4.8; direct bilirubin was 1.2; alanine transaminase 422, aspartate aminotransferase 242, prothorombin time/international normalized ratio 15.9/1.49. Her hepatitis A virus marker was positive on baseline. The abdominal ultrasound showed grade one hepatomegaly. Antibody to HAV was positive. The PCR load of hepatitis A was 20786412 IU/mL.

Treatment

The patient was advised Sharbat-e-Deenar 25 mL twice a day to be taken orally with normal water after meal. The dietary restrictions included avoidance of fatty foods.

Outcome and Follow-up

The patient was followed up fortnightly upto 2 months. There was complete suppression of nausea and vomiting. Her transaminases and bilirubin levels returned to the normal values. On completion of treatment, an abdominal ultrasound was done that yielded a normal report. The HAV viral load became negligible.

Table 1: Lab investigations.

Name of tests	Baseline	1 st Follow-up	2 nd Follow-up	3 rd Follow-up
AST	242	378	76	11
ALT	422	415	72	16
S. Total Bilirubin	4.8	2.33	1.1	1.05
Antibody HAV	Positive	-	-	-
Hepatitis A PCR	20786412/mL	-	-	Undetectable

Table. 2: Composition of Sharbat-e-Deenar.

Unani name	Botanical name	Family name	Part used	Weight (g)
Post-e-Beekh-e-Kasni	<i>Cichorium intybus</i>	Asteraceae	Root bark	170
Tukhm-e-Kasoos	<i>Cuscuta reflexa</i>	Convolvulaceae	Seed	100
Tukhm-e-Kasni	<i>Cichorium intybus</i>	Asteraceae	Seed	85
Guncha-e-Gul-e-Surkh	<i>Rosa damascena</i>	Rosaceae	Flower bud	85
Rewand Chini	<i>Rheum emodi</i>	Polygonaceae	Root	60
Gul-e-Nilofar	<i>Nymphaea alba</i>	Nymphaeaceae	Flower	45
Gaozaban	<i>Borago officinalis</i>	Boraginaceae	Leaves	45
Aab	Water	-	-	Q. S.
Qand Safaid	Sugar	-	-	1200

DISCUSSION

The first description of epidemic jaundice is attributed to Hippocrates who laid the foundation of Greeco-Arab (Unani) medicine. There is ample treasure of medicinal plants having hepato-protective actions in Unani medical texts. Sharbat-e-Deenar^[8] is a pharmacopeial compound medicine with indications in hepatitis, jaundice, and ascites. The ingredients of Sharbat-e-Deenar are reported for their hepatoprotective actions (Table 2).

Sharbat-e-Deenar has been evaluated for its hepatoprotective activity in animal models. Some medicinal plants of this formulation such as *Cichorium intybus*, *Rheum emodi* and *Rosa damascena* have been reported to have antioxidant and hepatoprotective activity. Arvind et al has reported the hepatoprotective action in experimental models.^[9] In another experimental study, Nazmul Huda et al also reported the hepatoprotective effect of Sharbat-e-Deenar against CCl₄ induced hepatotoxicity in animal models by reversal of serum bilirubin, ALT, and AST.^[10] Another study conducted by Arvind et al also evaluated hepatoprotective activity of Sharbat-e-Deenar in CCl₄ induced liver damage in experimental models.^[11]

Cichorium intybus is an important hepato-protective plant of Unani medicine. It is useful in hepatitis and jaundice.^[12]

A recent study has showed that the hepatoprotective effect of chicoric acid from *C. intybus* L. is attributed to the prevention of lipo-oxygenase, sustaining of antioxidant molecules, and over-expression of genes encoding antioxidant enzymes, thereby preventing DNA damage. This effect appears to be mediated by natural antioxidants in chicory roots, which significantly attenuated the oxidative threat and led to normal hepatic functions.^[13] *Rheum emodi* is reported for hepatoprotective activity. Ibrahim et al in an experimental study showed

the hepatoprotective effects.^[14] The probable mechanism is attributed to destruction of architectural pattern, nodule formation in the lobular zone, inflamed periportal zone, moderate inflammation of portal area^[14] exerted by contained flavonoids which showed significant hepatoprotective activity.^[15]

Rosa damascena is also a potent hepatoprotective plant. In a study it was found that oral administration of *Rosa damascena* at 50mg/kg body weight significantly reduced the serum alkaline phosphatase (ALP), glutamine pyruvate transaminase (GPT) and glutamine oxaloacetate transaminase (GOT) activity and lipid peroxide level in rats receiving an acute dose of CCl₄. It showed that *Rosa damascena* can protect liver against hepatotoxicity possibly by its antioxidant activity due to flavonoids.^[16]

Cuscuta reflexa is reported to possess antitumor, hepatoprotective and antioxidant activities. Panda et al reported the hepatoprotective effect of *Cuscuta reflexa* in experimental study possibly attributed to flavonoids and saponins contained in the plant.^[17]

Neelofar is a very potential plant of Unani medicine having hepatoprotective activity. The hepatoprotective activity of Ethanolic Extract of flower of *Nymphaea alba* (200 and 400 mg/kg) was conducted to treat the hepatotoxicity and produced significant reduction in serum enzymes (SGOT, SGPT and ALP), bilirubin and cholesterol levels which may be due to various phytoconstituents like alkaloids, glycosides and flavonoids.^[18]

CONCLUSION

It was observed that Sharbat-e-Deenar is a potential hepatoprotective Unani medicine in reducing the signs and symptoms of Hepatitis A. The probable effect may be attributed to flavonoids present in ingredients of the compound formulation.

Conflict of Interest: Non declared.

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