

Standardization of a Unani Poly- Herbal Formulation 'Habb-e-Irq-un-Nisa'

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Introduction

Hubb (pills) are small round and uniformly shaped medicinal preparations in Unani system of medicine. Habb-e-Irq-un-Nisa is a poly-herbal Unani formulation listed under the category of Habb in National formulary of unani medicine, Part- III (Anonymous, 2001). The ingredients prescribed for this formulation are: Sibr (*Aloe barbadensis* Linn.), Post-e-Halela Zard (*Terminalia chebula* Retz), Suranjan Shreen (*Colchicum autmnale* Stev). The formulation has many therapeutic actions in Unani System of Medicine such as Irq-un-Nisa (Sciatica), Niqras (Gout), Waj-ul- Mafasil (Asthralgia). Previous standardization work on various Habb preparations was carried out on Habb- e- Shifa (Rashid *et al.*, 2007), Habb- e- Narmushk (Negi *et al.*, 2010), pharmacopoeial monographs on Habb- e- Aftimoon, Habb- e- Anjeer, Habb- e- Ashkhaar, Habb- e- Baogola, Habb- e- Beesh were published by (Anonymous, 2009; 2010).

Material and Methods

Ingredients of the formulation were collected from the market of Delhi and identified with the help of pharmacopoeial standards (Anonymous, 2007) and finally compared with reference standard samples kept in Pharmacopoeial Laboratory of Indian system of medicine. The compound formulation was prepared in the laboratory following standard operating procedure prescribed in the formulary (Anonymous, 2001).

Formulation/Composition: Habb-e-Irq-un-Nisa has following ingredients in the composition (Anonymous, 2001).

Table 1: Composition of Formulation Habb-e-Irq-un-Nisa

S. No.	Unani Name	Botanical Name	Part used	Quantity
1.	Sibr	Aloe baradensis Linn.	Leaf extract	35 g
2.	Post-e-Halela Zard	Terminalia chebula Retz.	Pericarp	35 g
3.	Suranjan Shreen	Colchicum autmnale stev	Corm	35 g

Method of Preparation: The formulation was prepared as per methodology given in official formulary (Anonymous, 2006).

Powder microscopy, physico- chemical and chromatographic studies of the ingredients and formulation were carried out according to the standard methods given in Anonymous (2007).

Observations

A. Pharmacognostical Studies

a. Ingredients

(i) Suranjan Shirin (*Colchicum autumnale* Stev) Part used- Corm

Macroscopy: Form-conical rounded on one side flattened on the other with a groove in the middle running throughout the length of corm; colour –yellowish white; Surface- Smooth; fracture- short, odourless and bitter taste (Fig. 1B).

Powder Microscopy: Starch grains simple and compound type, compound grains-usually have three rarely have four components, which were separated are curved on one side and angular on the others. They have a conspicuous stellate hilum, the simple grains are rounded; fragments of epidermis with thin, reddish brown walls; tracheae few with spiral or scleriform markings.

(ii) Sibr (*Aloe barbadensis* Linn): Part used- Leaf extract.

Macroscopy: Irregular masses, black brown colour surface dull, opaque, fracture irregular, characteristic odour, taste bitter and unpleasant (Fig- 1A).

Powder Microscopy: (Mounted in lactophenol) Powder coarse, dark brown with characteristic odour and bitter taste. It shows transparent shining irregular crystalline bodies.

(iii) Post- e- Halela (*Terminalia chebula* Retz): Part used- Pericarp.

Macroscopy: Broken pieces of yellowish brown fruit, glabrous, wrinkled, fracture brittle with agreeable odour and astringent taste (Fig. 1C).

Powder Microscopy: Groups of sclerieds lignified, pitted; Fibers in groups, thick walled lignified; pitted trechieds; Rossette of crystals.

b. Macroscopic/Organoleptic characteristics of formulation:

Small coffee brown colour, solid round pills having sweet but slightly bitter taste with aromatic smell.

c. Microscopic examination of compound Formulation

Microscopic examination of the powdered drug shows fragments of transparent, shining, irregular crystalline bodies of (Sibr) (Fig.2A).

Powdered drug shows starch grains which are simple, oval to round with stellate hilum of (Suranjan) (Fig. 2C).

Some elongated fibres thick walled, lignified with distinct simple pits of (Halela zard) (Fig. 2B).

B. Physico-Chemical Analysis

1. Physico- chemical analysis of compound formulation:

Table-2

Chemical Parameters	Value
Alcohol soluble matter, %, w/w	9.30
Water soluble matter, %, w/w	30.20
pH value, 1% solution	4.99
pH value, 10% solution	4.67
Loss on drying, %, w/w	8.56

C. Thin Layer Chromatography

Five g powdered drug was extracted in 60 ml of absolute alcohol under reflux on water bath for 10 min. Filtered and concentrated the filtrate up to 4 ml. The extract obtained was applied on a pre-coated silica gel plate and developed in Ethyl acetate: Methanol: Water (100: 13.5: 10) system in developing chamber. The plate was dried and sprayed with Anisaldehyde- Sulphuric acid reagent and again the plate was dried and kept in an oven for heating at 105⁰ c for 10 minutes, Fig-3R_f values of the observed spots are tabulated in:

Table 3: TLC Data on ingredients and formulation

Ingredients / Formulation	Rf VALUE
Suranjan	0.13, 0.24, 0.51, 0.62
Sibr	0.15, 0.43, 0.51, 0.72
Post-e-Halela	0.10, 0.39, 0.64, 0.72
Habe-e-Irqunisha	0.13, 0.37, 0.51, 0.64, 0.72

Conclusion

Authentication of ingredients by Macroscopy, Microscopy (Fig. 1, 2), along with physico- chemical parameter (Table 2) followed by HPTLC Profile (Fig-3, Table No. 3) demonstrates the genuineness and purity of Hab- e- Irqunisha, that may helping ensuring the quality of other indigenous medicine as well.



A. Sibr (Aloe barbadensis)

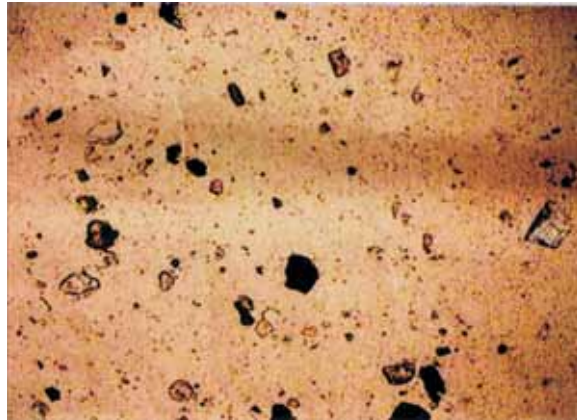


B. Suranjan (Colchicum luteum)



C. Post-e-Halela zard (Terminalia chebula)

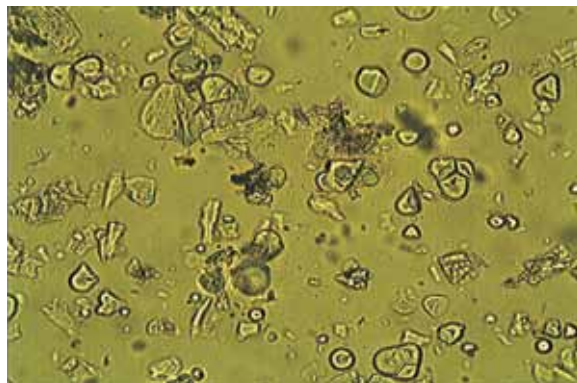
Fig.1: Ingredients of Habb-e-Irqunisha



A. Habb Irqinisha shows Crystals of Sibr x40

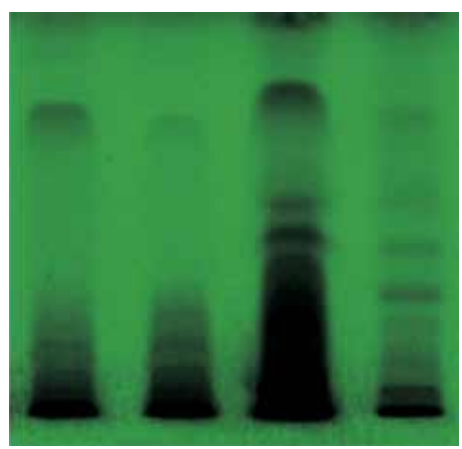


B. Habb Irqinisha shows Fibers of Halela Zard x40

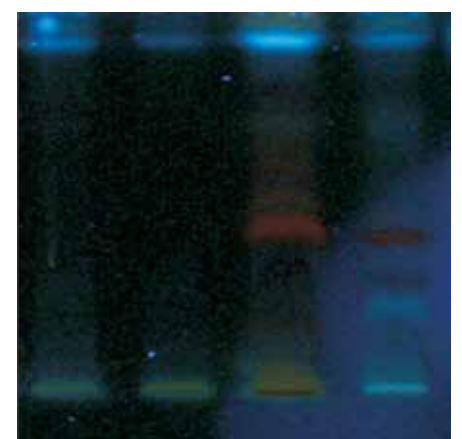


C. Habb Irqinisha shows starch grains of Suranjanx40

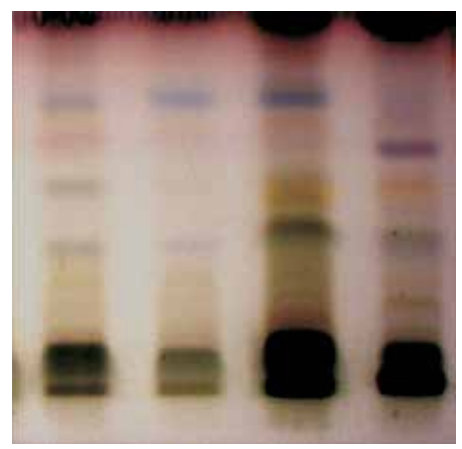
Fig.2 Microscopic Examination of Habb-e-Irqinisha



1 2 3 4
A. U. V. 254 n.m.



1 2 3 4
B. U.V. 366 n.m.



1 2 3 4
C. After derivatization

1-Habb-e-Irqunisha, 2-Halela Siyah, 3-Sibr, 4-Suranjan Shirin
Solvent System: Ethyl acetate: Methanol: Water (100:13.5:10)
Spray reagent: Anisaldehyde- sulphuric acid.

Fig-3: HPTLC Profile of Habb-e-Irqunisha

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