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Itrifal Kishneezi: A potent antidepressant Unani formulation

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REVIEW ARTICLE

ABSTRACT

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Itrifal is one of the important oral semisolid Unani dosage forms, which is used especially for gastric and mental problems. The essential constituents of Itrifal are triphala. Triphala consists of three fruits: Halaila (*Terminalia chebula*), Balaila (*Terminalia bellerica*) and Amla (*Emblca officinalis*). Itrifal Kishneezi (IK) is an important confection, prepared from *Halailajat* (all three types of Halaila, Balaila and Amla) along with Kishneezi (*Coriandrum sativum*). IK is used traditionally for flatulence, gastric problems and chronic cold etc. IK has also been reported for its antidepressant and antioxidant potential in recent years.

Key words: Itrifal, Itrifal Kishneezi, Triphala, Antidepressant, Antioxidant.

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INTRODUCTION

With growing awareness of health care and safety aspects, plant derived products and products from natural sources, are increasingly being sought out. In recent years, market of herbal and traditional medicines have grown up leap and bound. Traditional and Complementary Medicine (T&CM) continues to be widely used in most of the countries, and its use is increasing rapidly in rest of the countries. As a result, WHO carried out a comprehensive analysis of the current status of T&CM around the world and worked with experts to develop the 'WHO Traditional Medicine Strategy 2014-2023' (Anonymous, 2013). At the International Conference on Traditional Medicine for South-East Asian Countries in February 2013, the WHO Director-General, Dr Margaret Chan, stated that "traditional medicines, of proven quality, safety, and efficacy, contribute to the goal of ensuring that all people have access to care. For many millions of people, herbal medicines, traditional treatments, and traditional practitioners are the main source of health care, and sometimes the only source of care. This is the care that is close to homes, accessible and affordable. It is also culturally acceptable and trusted by large numbers of people. The affordability of most traditional medicines makes them all the more attractive at a time of soaring health-care costs and nearly universal austerity. Traditional medicine also stands out as a way of coping with the relentless rise of chronic non-communicable diseases." (Anonymous,

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2013; WHA62.13, 2009). Regardless of reasons for seeking out T&CM, there is little doubt that interest has grown, and will almost certainly continue to grow, around the world.

One of the traditional systems of medicine, viz. Unani system of medicine, can have a big role to play in medical field as it is thousands years old and time tested. There is a huge treasure of compound medicines, described in Unani pharmacopoeias that have developed as a result of cumulative efforts of eminent scholars of Unani Medicine.

Itrifal Kishneezi (IK) is one of the important Unani oral semisolid compound formulations. It contains black myrobalan (unripe fruit), yellow myrobalan (fresh ripe fruit) and brown myrobalan (dried ripe fruits) along with other ingredients. It is formulated with the base (*Qiwam*) of sugar or honey (Anonymous, 1986). IK has been traditionally used as a brain tonic, nerve tonic, cardiac tonic and stomachic.

Itrifal

Itrifal is a semisolid medicinal preparation where more than one single drug of plant, animal or mineral origin are mixed in powder or liquid form in the base (*Qiwam*), made of purified honey, sugar, candy or jaggery (Anonymous, 2007).

Itrifal is a Unani word that means *Halailajat* and it was invented by *Indru Maakhas* (Antaaki, 1899; Rahman, 1991). According to some authors, it is a

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preparation of Vaidis and the word *Itrifal* is originated from *Triphal*. *Triphal* is a Hindi word which means three fruits. These three fruits are *Halaila*, *Balaila* and *Amla* (Ghani, YNM).

Preparation of Itrifal

First of all, *Halailajat* are ground into powder and passed through appropriate mesh sieve then the powder is rubbed (*charb*) with *Raugahan e Badam* (almond oil) or *Raughan e Zard* (Ghee). Other ingredients are powdered separately or with *Triphala* (and then whole powder is rubbed with one of the *Raughan*) (Ghani and Khan, 1995).

Important points regarding preparation of Itrifal

It is an allied preparation of *Majoon*.

Like *Majoon*, for making *Itrifal*, *Qiwam* (base) of different consistencies (tar) is generally made, depending on the nature of ingredient drugs to be used in a particular formula.

Table 1. Ingredients of IK (Anonymous, 1993).

S. No	Unani name	Botanical name	Parts used	Quantity
1	Post Halaila Zard	<i>Terminalia chebula</i>	Fruit	100 g
2	Post Halaila Kabuli	<i>Terminalia chebula</i>	Fruit	100 g
3	Halaila Syah	<i>Terminalia chebula</i>	Fruit	100 g
4	Post Balaila	<i>Terminalia bellirica</i>	Fruit	100 g
5	Amla	<i>Emblica officinalis</i>	Fruit	100 g
6	Kishneezi Khushk	<i>Coriandrum sativum</i>	Fruit	100 g
7	Sugar			1.8 kg
8	Raughan Badam/ Ghee			As required

Method of preparation of IK

1. **Powdering the *Halailajat* and *Kishneezi*:** As per the classical method, *Halailajat* (from S.No.1 to 5) are first dried to evaporate their moisture content and pounded in an iron mortar. Initially gentle pounding is employed to break the drugs into small pieces then vigorous pounding is done till they are ground into coarse powder. The powder is then passed through appropriate mesh sieve (Shahid et al., 2013). *Kishneezi* (coriander) is dried, powdered and sieved separately or with the *Halailajat*.
2. **Rubbing (*Tad'heen* or *Charb*) the *Halailajat* with almond oil or sesame oil or Ghee:** *Tad'heen* or *Charb* is the process of correction or detoxification in which dry drug is made oily or rubbed with some special oil. This terminology of pharmaceuticals is often used for *Halailajat*. For making *Itrifal*, the powdered *Halailajat* (Separately or with other ingredients of *Itrifal*) are rubbed with one of the following oils:
Raugahan e Badam (Almond oil)
Raughan e Zard (Cow Ghee) (Antaaki, 1899; Kabeeruddin, 1921)

The Ingredient drugs of *Itrifal* should be coarsely powdered (Ghani, YNM).

It is better to use any *Itrifal* forty days after preparation (Anonymous, 1986).

Shelf life of any *Itrifal* is two and half years (Antaaki, 1899; Ghani, YNM) or three years (Anonymous, 2005).

Itrifal Kishneezi

Itrifal Kishneezi (IK) is an important Unani compound formulation, which is widely used to treat many diseases of brain, eyes, ears, nose and digestive system. The description is found in ancient classical Unani *Qarabadeen* (Pharmacopoeias) such as *Qarabadeen e Qadri* (Arzani), *Qarabadeen e Azam* (Khan, 1996), *Bayaz e Kabeer-II*, *Qarabadeen e Majeedi* etc. It is also mentioned in 'National Formulary of Unani Medicine' (Anonymous, 1993).

It contains the following ingredients, listed below in Table 1.

Raughan e Kunjad (Sesame oil) (Antaaki, 1899; Kabeeruddin, 1921)

Raughan e Bed Injeer (Castor oil) (Choghtai and Choghtai, YNM)

Raughan e Badam is preferred to rub with, if *Itrifal* is to be used for headache (Antaaki, 1899).

There are three benefits of rubbing the *Halailajat*:

- a. It is corrected and able to be used.
- b. It becomes soft in consistency.
- c. Shelf life is increased (Khan, 1995; Shahid et al., 2013)

3. **Mixing the rubbed powder in the *Qiwam*:** For making *Majoon* or any of its allied preparations, *Qiwam* (Base) of different consistencies is generally made, depending on the nature of ingredient drugs to be used in a particular formula. The ingredient drugs in a *Qiwam* may be used either in powder or liquid form.

The *Qiwam* is generally made by adding *Aab* (water), *Arq* (Distillate) or *Aab e Samar* (Fruit Juice) etc., in any of the bases of purified Honey with Sugar, Candy or Jaggery etc., and boiled over a low fire till it acquires a required consistency. The bases are generally purified by adding *Aab e Leemu* (Lemon

juice), *Satt e Leemu* (Lemon extract) or *Shibb e Yamani* (Alum) etc. Afterwards, the ingredient drugs are mixed in it, to prepare *Jawarish*, *Majoon*, *Itrifal*, *Halwa*. For making *Majoon* or any of its preparations the consistency of *Qiwam* of *Majoon* is Three *Tar* (Anonymous, 2007).

Another *Nuskha* (formulation) of Itrifal Kishneezi and method of preparation:

There is one another version of Itrifal Kishneezi, (Kabeeruddin M) containing some more ingredients along with the above mentioned ingredients, which are as under:

S. No	Unani name	Botanical name	Parts used	Quantity
1	Gul e surkh	<i>Rosa damascena</i>	Petals	100 g
2	Ustokhuddoos	<i>Lavandula stoechas</i>	Flowers	100 g
3	Turanjabeen Khurasani	<i>Alhagi pseudalhagi</i>	Whole shrub	400 g

In this *Nuskha*, *Sheer e Amla* is mentioned rather than simple *Amla*. *Sheer e Amla* is prepared by dipping *Amla* in the cow milk. When *Amla* absorbs the milk and becomes soft, it is dried a little (Kabeeruddin, 1921).

After powdering (*Halailajat*, *Kishneezi*, *Gul e Surkh* and *Ustokhuddoos*) coarsely, the powder is sieved, rubbed with oil and mixed in the *Qiwam*, made with sugar and *Turanjabeen* both. *Turanjabeen* is dissolved in water, filtered and then sugar or honey is mixed in it. If the patient is of warm temperament and weather is warm, then *Qiwam* should be made of sugar candy rather than honey (Kabeeruddin, 1921).

Dose of IK

Different scholars have mentioned different doses as under:

- 5-10g (Anonymous, 1993)
- 10g (Anonymous, 1986)
- 12g (Khan, 1996)
- 9-24g (Kabeeruddin)

How and when to use: It is better to use it forty days after formulation (Khan, 1996).

It should be taken with *Arq e Badyan* or *Arq e Gao-Zaban* (Kabeeruddin, 1921; Ghani, YNM) 120 ml (Khan, 1995) or with water at bed time.

Medicinal activities of IK: (Anonymous, 2007; Khan, 1995; Khan, 1996)

IK is used as a tonic for brain and heart since ancient time. It is also useful for digestive system. Medicinal activities of IK are listed in Table 2.

Table 2. Medicinal activities of IK.

S. No.	Medicinal Activities
1	Brain tonic
2	Cardiac tonic
3	Carminative
4	Stomachic
5	Laxative
6	Eye tonic

Qiwam is made, as described above and all the powdered drugs are mixed in the *Qiwam* to form IK (Anonymous, 1993).

Therapeutic Uses: (Anonymous, 1986; Kabeeruddin, 1921; Anonymous, 1993; Qarashi, 2011, Samarqandi, YNM; Khan, YNM)

IK is traditionally used in many diseases. It was also reported to be useful in depression and oxidative stress. A number of diseases in which IK is beneficial, is listed in Table 3.

Table 3: Diseases in which IK is beneficial

S. No.	Diseases
1	Cold and catarrh
2	Flatulence
3	Piles
4	Bleeding piles
5	Conjunctivitis
6	Redness of eyes
7	Earache
8	Chronic cold
9	Migraine
10	Headache due to flatulence and fever
11	Pain in nose followed by cold and catarrh
12	Many diseases of eyes and ear
13	Depression
14	Oxidative stress

Pharmacological studies:

Antidepressant activity:

IK was tested for antidepressant activity in animal models viz., Despair Swim Test (DST) and Tail Suspension Test (TST) and apomorphine induced hypothermia in mice by Koneru *et al*, in 2010. IK decreased the immobility period in a dose dependant manner in both DST and TST and reversed hypothermia in mice (Koneru *et al.*, 2010).

Antioxidant activity:

It was also reported for DPPH-free radical scavenging and Fe²⁺ metal ion chelating activity using UV-Vis spectrophotometer, in 2011. It showed considerable *in vitro* antioxidant activity in a dose dependant manner (Sharangi, 2011).

Adverse effect: It causes *Nisyan* (amnesia) if the quantity of coriander is increased in IK and/ or used in more quantity or continuously for more than two months (Arzani).

CONCLUSION

Depression is common - one in five women and one in eight men will experience depression in their lifetime (Anonymous, 2008). Research shows there are strong links between depression and chronic physical illness. Depression increases the likelihood of developing a chronic physical illness, particularly heart disease, stroke and diabetes (Clarke, 2009). Reports from the International Diabetes Federation (IDF) indicate that the prevalence of diabetes mellitus has reached epidemic levels globally and it is expected to be increased to 439 million in 2030 from 285 million in 2010 (Anonymous, 2009). Studies show that depression and diabetes may be linked. More than 300 years ago Dr. Thomas Willis, a British physician, made the observation that there was a relationship between diabetes and depression when he suggested that diabetes was the result of "sadness or long sorrow" (Willis, 1971; Egede, 2009). Anderson and colleagues found that the prevalence of major depression in people with diabetes was 11% and the prevalence of clinically relevant depression was 31% (Egede, 2009; Anderson et al., 2001). However, IK can play an important role as a Unani antidepressant if it is made sugar free and dose is reduced. So, in view of the current and future scenario of depression and diabetes it is need of hour to make it sugar free..

CONFLICT OF INTEREST

None declared.

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