Itrfal Kishneezi: A potent antidepressant Unani formulation


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**ABSTRACT**

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 tripphala. Tripphala consists of three fruits: Halaila (Terminalia chebula), Balaila (Terminalia bellerica) and Amla (Emblica officinalis). Itrifal Kishneezi (IK) is an important confection, prepared from Halailajat (all three types of Halaila, Balaila and Amla) along with Kishneez (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.

**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, 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 (Qiwm) 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 (Qiwm), 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...
preparation of Voids 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 Raughan 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).

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

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 pharmaceutics 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:
   - Raughan e Badam (Almond oil)
   - Raughan e Zard (Cow Ghee) (Antaaki, 1899; Kabeeruddin, 1921)
   - Raughan e Kunjad (Sesame oil) (Antaaki, 1899; Kabeeruddin, 1921)
   - Raughan e Bad Injeer (Castor oil) (Choghtai and Choghtai, YNM)
   - Raughan e Bed Injeer (Castor oil) (Choghtai and Choghtai, YNM)
   - Raughan e Kunjad (Sesame oil) (Antaaki, 1899; Kabeeruddin, 1921)

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

\textbf{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:

<table>
<thead>
<tr>
<th>S. No</th>
<th>Unani name</th>
<th>Botanical name</th>
<th>Parts used</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gul e surkh</td>
<td>\textit{Rosa damascena}</td>
<td>Petals</td>
<td>100 g</td>
</tr>
<tr>
<td>2</td>
<td>Ustokhuddoos</td>
<td>\textit{Lavandula stoechas}</td>
<td>Flowers</td>
<td>100 g</td>
</tr>
<tr>
<td>3</td>
<td>Turanjabeen Khurasani</td>
<td>\textit{Alhagi pseudalhagi}</td>
<td>Whole shrub</td>
<td>400 g</td>
</tr>
</tbody>
</table>

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

After powdering (\textit{Halailajat, Kishneez, Gul e Surkh} and \textit{Ustokhuddoos}) coarsely, the powder is sieved, rubbed with oil and mixed in the \textit{Qiwam}, made with sugar and \textit{Turanjabeen} both. \textit{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 \textit{Qiwam} should be made of sugar candy rather than honey (Kabeeruddin, 1921).

\textbf{Dose of IK}

Different scholars have mentioned different doses as under:

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

\textbf{How and when to use:} It is better to use it forty days after formulation (Khan, 1996). It should be taken with \textit{Arq e Badyan or Arq e Gao-Zaban} (Kabeeruddin, 1921; Ghani, YNM) 120 ml (Khan, 1995) or with water at bed time.

\textbf{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.

\textbf{Table 2. Medicinal activities of IK.}

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Medicinal Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Brain tonic</td>
</tr>
<tr>
<td>2</td>
<td>Cardiac tonic</td>
</tr>
<tr>
<td>3</td>
<td>Carminative</td>
</tr>
<tr>
<td>4</td>
<td>Stomachic</td>
</tr>
<tr>
<td>5</td>
<td>Laxative</td>
</tr>
<tr>
<td>6</td>
<td>Eye tonic</td>
</tr>
</tbody>
</table>

\textbf{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.

\textbf{Table 3: Diseases in which IK is beneficial}

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

\textbf{Pharmacological studies:}

\textbf{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 \textit{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 \textit{et al.}, 2010).

\textbf{Antioxidant activity:}

It was also reported for DPPH-free radical scavenging and Fe$^{2+}$ metal ion chelating activity using UV-Vis spectrophotometer, in 2011. It showed considerable \textit{in vitro} antioxidant activity in a dose dependant manner (Sharangi, 2011).

\textbf{Adverse effect:} It causes \textit{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; Andersson 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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