



Review on Herbal Cough Syrup

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INTRODUCTION

A cough is a sudden and often repetitively occurring process which helps to clear the large breathing passages from secretions, irritants, foreign particles and microorganisms. . When there is a blockage or irritation in the throat or upper air passage, the brain thinks a foreign element is present and tells the body to cough to remove that element. Generally coughing is perfectly normal. A cough can help to keep your throat clear from phlegm and other irritants. However, sustained coughing can also be symptomatic of a number of conditions. The cough reflex consists of three phases: an inhalation, a forced exhalation against a closed glottis, and a violent release of air from the lungs following opening of the glottis, usually accompanied by a distinctive sound. Coughing is either voluntary or involuntary.

It is one of the most common health problems. Coughing can also be due to a respiratory tract infection such as the common cold, acute bronchitis, pneumonia, pertussis, flu and smoking or health problems such as asthma, tuberculosis and lung cancer. In the vast majority of cases, acute coughs, i.e. coughs shorter than three weeks, are due to the common cold. Pertussis is increasingly being recognized as a cause of troublesome coughing in adults.

- **Types of cough:**

Mainly there are two types of cough, which are classified as follows

- A. **Wet cough**
- B. **Dry cough**

A. WET COUGH

- i. Non productive cough.
- ii. It expels secretion mucous or foreign Material from respiratory tract.
- iii. The main purpose of wet cough is to remove the foreign matter

B. DRY COUGH

- i. Productive cough.
- ii. It expels secretion or mucous from lungs.
- iii. Dry cough is chronic in nature and it caused by dry irritation

Classification of cough:

- **Herbal Treatment for Cough:**

The patients suffering from common cold and cough are the highest among 14 different respiratory ailments, followed by whooping cough, asthma, nosebleed and bronchitis which can be treated by medicinal plants. The treatment of cough in children is based on an underlying cause. In children half of cases go away without treatment in 10 days and 90% in 25 days. A trial of antibiotics or inhaled corticosteroids may be tried in children with a chronic cough in an attempt to treat protracted bacterial bronchitis or asthma.

Advantages of Herbal Medicine:

- 1. Harmless

2. Low cost
3. No side effect

Disadvantages of Herbal Medicines

✓ ADR with prescription drugs

- i. Herbal medicine can produce adverse effect if they are mixed with drugs like antidepressants which are taken on a regular basis.
- ii. Also herbal medicines having another disadvantage is the risk of self dosing of herbs which is very rare.

✓ Patients

- i. Herbal medicines are the natural product. The effectiveness of herbal medicines is not optimized in laboratory so it takes time to produce effect.

List of herbal ingredients

1] Tulsi

Ocimum tenuiflorum, commonly known as holy basil, tulsi or tulasi, is an aromatic perennial plant in the family Lamiaceae.



Uses

1. relieves chest congestion
2. Antimicrobial

2] Ginger

Ginger (*Zingiber officinale*) is a flowering plant whose rhizome, ginger root or ginger, is widely used as a spice and folk medicine. It is a herbaceous perennial which grows annual pseudo stems (false stems made of the rolled bases of leaves) about one meter tall bearing narrow leaf blades. Fights Germs, Keeps your mouth healthy, Ginger's antibacterial power may also brighten your smile, Calms Nausea, Soothes Sore Muscles, Eases Arthritis Symptoms, Curbs Cancer Growth, Lowers Blood Sugar, Eases Period Pains.



Uses

1. Anti-inflammatory effect you cough when you have a sore throat or bronchitis
2. Treatment of colds, nausea and hypertension.

3] Liquorice

Liquorice or licorice is the common name of *Glycyrrhiza glabra*. A flowering plant of the bean family Fabaceae, from the root of which a sweet, aromatic flavouring can be extracted.



Uses

1. Helping to loosen thick mucus in airway.
2. to inhibit infection of human respiratory syncytial virus (HRSV)

4] Fennel

Fennel consists of the dried ripe fruits of *Foeniculum vulgare* Miller, belonging to Family Umbelliferae. Fennel contains a mix of antioxidants, antimicrobial components and anti-inflammatory volatile oils, which help alleviate the risk of cold, cough and flu and provides instant relief.



Uses

1. Is used as carminative, flavouring agent.
2. It is also used for upper respiratory tract infections, coughs, bronchitis, cholera.

5] Cardamom

Cardamom, sometimes cardamon or cardamom, is spice made from the seeds of several plants in the *Elettaria cardamomum* belongs to the family zingiberaceae



Uses

This is particularly useful for individuals who are
-are asthmatic, suffer from bronchitis, pneumonia

6] Adulsa

Adhatoda vasica has various biological activities such as antioxidant, anti-inflammatory, immunomodulating, antispasmodic and antiallergic properties, and acts as a cough suppressant. Arabinogalactan samples extracted from the plant showed 67% cough suppression [12]. After oral administration to the guinea-pig the antitussive activity of *A. vasica* was similar to codeine against coughing induced by irritant aerosols.



Uses

Adulsa cough syrup is non-narcotic formulation that gives quick and safe relief from

- bronchitis
- chest congestion

7] Honey

Honey is a sweet, viscous food substance made by honey bees and some other bees. Bees produce honey from the sugary secretions of plants or from secretions of other insects, by regurgitation, enzymatic activity, and water evaporation. Rich in antioxidants, Better for blood sugar levels than regular sugar, May improve heart health, Promotes burn and wound healing, May help suppress coughing in children.



Uses

- honey can be used to treat day and night time dry coughing.
- honey has antibacterial properties and can also help to coat the throat ,alleviating Irritation.

8] Clove

Cloves are the aromatics flower buds of tree in the biological name is *syzygium aromaticum* and belongs to the family Myrtaceae. Cloves also possess antibacterial properties and helps alleviate the pain caused due to constant coughing and sore throat.



Uses

- it is used as expectorant.
- cloves also help get rid of the itchy feeling which is common during dry cough

METHODS OF PREPARTION

SR. NO.	TEST	PROCEDURE
1	Moisture content	1. weight 2 gm of sample and take in petridish 2. heat it in the hot air oven at 100c for 1 hr 3. Then allowed to coo. Weigh the sample again
2	Determination of ethanol extractive value	1. Take macerated 5gm of air dried,shaken coarsely powdered drug with 100ml of 95% ethanol in closed flask for 24hrs. 2.shake it frequently for first 6 hours and then allowed to stand for 18 hrs. 3.Then filter it rapidly 4.Evaporated 25ml filtrate to dryness in a flat bottomed petridish 5.Dry at 105c and weighed.(17,18)
3	Determination of Water extractive value	1.Macerated 5gm of air dried drug coarsely powdered with 100ml chloroform water in closed flask for 24hrs. 2.Shaken frequently for frist 6 hrs. 3.Allowed to stand for 18 hrs 4.Evaporate 25ml of filtrate to dryness in a flat bottomed petridish 5.Dry at 105c and weighed

EVALUATION OF FORMULATION:

- **Colour Examination:-**

1. 5ml of prepared syrup was taken on a watch glass.
2. watch glass placed against white background in white tube light.
3. colour was observed by naked eyes.

- **Odour Examination**

1. 2ml of prepared syrup was taken and smelled by individually.
2. the time interval between 2 smelling was 2 min tonullify effect of previous smelling.

- **Taste Examination**

1. A pinch of final syrup was taken and examined on taste buds of the toungue.

- **pH Determination**

1. 10ml of prepared syrup taken in 100ml of volumetric flask.
2. make up volume to 100ml with distilled water.
3. sonicate for 10 min.
4. pHwas measured by using digital pH meter.

- **Viscosity Determination**

1. the viscosity of each formulation was determined by using Ostwalds U-tube Viscometer.

Preparation of liquid oral:

The liquid oral is prepared by two methods; first is decoction method and maceration method.

A. Method of preparation decoction:

- 1] 5-7gm of each herbal ingredients.
- 2] Herbs was mixed using 500ml of water.
- 3] Attach reflux condenser and material was boil under carefully by using water bath for 3 hrs.
- 4] Boil until total volume become one forth part of previous.
- 5] Then liquid was cooled and filtered.

B. Method of preparation Maceration:

- 1] The 35 ml, 40 ml and 45ml of honey was taken.
- 2] 1.75gm, 2gm, 2.25gm of ginger mixed with 35ml, 40ml, 45ml honey in beaker and pack the aluminum foil.
- 3] Beaker aloe to stand at room temperature for 24 hrs.
- 4] After 24 hrs. the preparation are filtered and filter was used as final oral form.

C. Final herbal cough syrup

- 1] To prepared final cough syrup 35ml of macerated ginger with honey add 25 ml of decoction was mixed slowly by continuous stirring.
- 2] Again 40 ml and 45 ml macerated ginger with honey added 15 ml and 20ml of decoction was mixed slowly by continuous stirring.
- 3] Herbal cough syrup was prepared and solubility was checked by observing clarity of solution visually.

CONCLUSION

Among respiratory track disorders cold and cough are common symptoms having variety of reasons behind them. It can lead to the serious disease if not treated in time. Proper diagnoses can cure this problem by different types of medicinal drugs commonly found around us alone or in combination.

The Preformulation studies of all formulations were within specifications. Also the physiochemical properties of prepared syrup like colour, odour, pH, taste were satisfactory but among the all three formulation is was within the all specification, it has proper concentration of honey as per IP and also a good preservative.

The present study help to develop affective and safe herbal cough syrup with 40% W/Vhoney as a base of cough syrup.

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