

Herbs Used in Herbal Cough Syrup

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Abstract

An ancient time peoples use various plant, roots, and leaves for treatment various disease. Herbal cough syrup is an Ayurveda medicine which is useful in many chronic health problem such as cough, cold, fever, respiratory infection and disorders among human. As a combination of herbs, it is safe, can be made at home, has a low production cost, and can be easily available in any area. Herbal syrup including natural herbs, like tulsi, clove, fennel, turmeric and adulsa which have various action and effect on reducing acute or chronic cough and cold and act as cough suppressant having expectorant and anti-tussive property. In this research, I conclude about herbal cough syrup that, herbal cough syrups is a safest herbal medicine which is use for treatment of cough and cold.^[1,2]

Keywords: Antitussives, Extraction, Anti-microbial activity, Mucolytics, Demulcent

1.INTRODUCTION:

Cough:A cough also known as tussive is a voluntary or involuntary act that clears the throat and breathing passage of foreign particales ,microbes ,irritants ,fluids ,and mucus . It is one of the most common health problems coughing can also be due to a respiratory tract infection such as common cold ,acute bronchitis ,flu and smoking or health problems.^[3,4]

COUGH HISTORY :

1 .Onset and Duration

Acute :< 3 weeks (self limiting less than 3 weeks)

Subacute:3-8 weeks

Chronic:> 8 weeks

Acute cough such as during and after common cold is usually due to upper respiratory viral infection. Non -viral causes include environmental pollution, asthma and occupational exposure .From therapeutic point of view, chronic cough with normal chest x-ray.^[5,6]

TYPES OF THE COUGH:

Two types of cough:

I .Wet Cough

II .Dry cough

Dry cough	Wet cough
1)productive and effective cough	1)Non effective and infective cough
2)It expels secretion mucous or foreign material from respiratory tract	2) It expels secretion or mucous from lungs
3) The main purpose of wet cough is to remove the mucous from respiratory tract	3)Dry cough is chronic in nature and it is caused by dry irritation smoke or dust .



Figure no.1 Different Kinds of cough wet vs dry

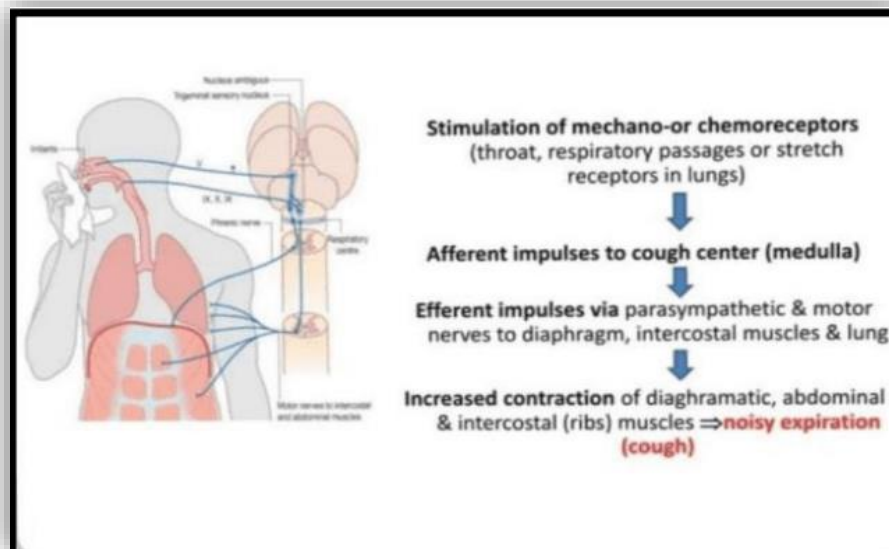


Figure no.2 Mechanism of action of cough

Advantages Of Herbal Syrup

- No Side Effect
- No Harmless
- Easily Available
- Easy to Adjust the dose for child's weight
- No nursing is required, which main and the patient can take it with no help.
- Herbs Grow in common place
- Good patient compliance especially pediatric patients as syrup are sweet in test.
- It is a preservative by retarding the growth of bacteria, fungi and mould as osmotic pressure.
- Low cost. [7,8]

Disadvantages Of Herbal Syrup

- Sedimentation of solid occasionally gives foot from of product.
- Dose precision can not be achieved unless suspension are packed in unit dosage forms .
- Same microbial contamination taken place it preservation not added in accurate proportion
- Also herbal medicine having another disadvantages is the risk of self dosing of herbs which is very rare. [9,10]

TREATMENT OF COUGH

Cough is protective reflex, intended to remove irritants and accumulated secretion from the respiratory passages. The drugs used in the symptomatic treatment of cough.

Antitussives: These are drugs that act in the CNS to raise the threshold of cough centre or act peripherally in the respiratory tract to reduce tussalimpulses or both these actions.

Example -Cinnamon, Vasaka leaf

Pharyngeal Demulcent: Demulcent are used to lubricant and protect the alimentary mucous membrane ,but the term is usually applied only to those agents that affect the buccal ,pharyngeal ,esophageal ,and gastric mucosa.

Example – Honey.^[11,12]

2) HERBS PLANTS USED TO TREAT COUGH:

I. *Ocimum sanctum* Linn



Figure no. 3 Tulsi

Synonyms – Holy basil ,sacred basil

Biological Source – It consists of dried leaves of *ocimum sanctum linn* .

Family –*labiatae*.

Chemical Constituents – Pleasant Volatile oil (0.1 to 0.9 %) Also Consist 70%Eugenol and carvacrol(3%) eugenolmethyl-ether (20%)

Uses - Leaves and volatile oil use in various purpose. The oil is antibacterial and insectidalused . Fresh leaves are use in stomachin.^[13,14]

II. *Pudina –Menthaspicalinn*



Figure no.4 Pudina

Synonyms- Peppermint, fragrant, mentha leaves .

Biological Source- pudina consist of dried leaves and obtained from flowering tops of *mentha spicata* Linn.

Family- Labiatae

Chemical Constituents-The main constituents of menthol (40.7%) and menthone (23.4%) further components were (%+-) menthyl acetate , 1.8-cineole , limonene , beta , pinene and beta -caryophyllene.

Uses-1) flavouring agent 2) Carminative , digestive , spasmolytic also use in one herbal syrup preparation [15,16]

III. Haridra



Figure no.5 Haridra

Synonym : Haldi, turmeric, *curcuma longa*

Biological Source : Haridra consist of the dried *rhizomes of curcuma longa* Linn.

Family: Zingiberaceae

Chemical constituents: Haridra contains not less than 1.5 %w/w of curcumin, calculated on the dried basis. Haridra is being used traditionally in spices as well as therapeutically. Haridra contains curcuminoids, desmethoxycurcumin, bidesmethoxycurcumin , dihydrocurcumin, phytosterols, fatty acids and polysaccharides.

Use: Turmeric have antiseptic and antioxidant properties, it is used skin care cosmetic. [17,18]

IV. Ginger



Figure no. 6 Ginger

Synonym –Haldi ,turmeric ,curcuma longa

Biological source : It is the dried rhizomes of *Zingiberaceaeofficinale*

Family :*Zingiberaceae*

Chemical constituents: it contains volatile oils ,minerals resins . Ginger oil contain zingiberine , bisabolone ,farnesene ,sesquiphellandrene and curcumene .resins contain phenolic ketones such as gingerols , shogaols ,zingerone and other compounds.

Uses :Stomachin ,aromatic, carminative,stimulant ,flavouring agent ,in Ginger beverages ,adsorbent of toxins from GIT ,to control parasitic infections.^[19,20]

VI. Honey

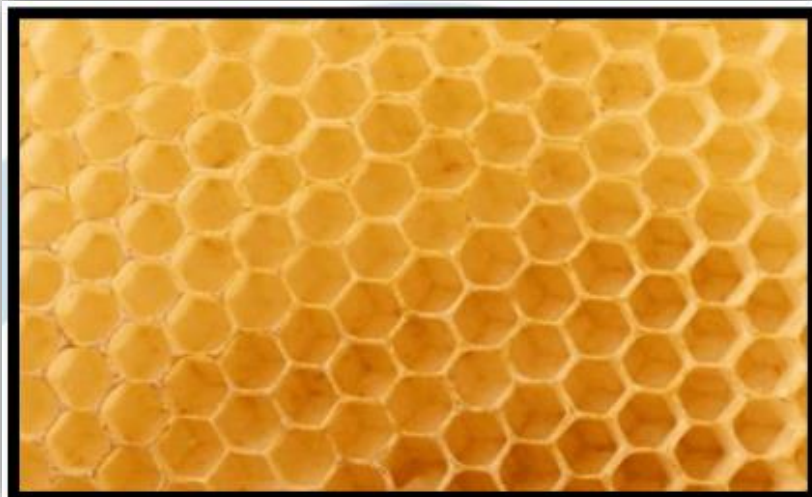


Figure no.7 Honey

Synonyms:madhu, madh, purified honey.

Biological source: Honey is viscid and sweet secretion stored in the honey comb by various species of bees, such as *Apis dorsata*, *Apis flora*, *Apis indica* and other *species of Apis*

Family: *Apidae*

Chemical constituents : The average composition of honey is as follows: Moisture 14-24%, Dextrose 23-36, levulose (fructose) 30-47% , Sucrose 0.4-6% , dextrin and Gums 0-7% and Ash 0.1-0.8% besides .It is found to contain a small amount of essential oil, beeswax, pollen grain, formic acid, acetic acid, succinic acid, maltose, dextrin, colouring pigment, vitamins and an admixture of enzymes.

Uses: It is used in treating burns and wounds. It is used in natural Cough syrup. It helps to improve digestion .^[21,22]

VII. Ashwagandha



Figure no. 8 Ashwagandha

Synonym – Withania root, winter cherry

Biological Source – It consists of dried roots and stem bases of *Withania somnifera* (Linn)

Family – *Solanaceae*

Chemical constituents- the main constituents of ashwagandha are alkaloids and steroidal lactones .among the various alkaloids withanine is the main constituent . The leaves contain steroidal lactones, withanolides, notably withaferin.

Uses – Ashwagandha has sedative and hypnotic effect .it has hypotensive , respiratory stimulant action .along with bradycardia .it is immuno-modulatory agent.^[23,24]

VIII. Clove



Synonyms: Clove bud, Laung, Lavang, Caryophyllum.

Biological source: It consists of dried flower buds of *Eugenia caryophyllus* (Sprengel) Bullock & Harrison (*Syzygium aromaticum* Linn).

Family: *Myrtaceae*.

Chemical Constituent: It mainly contains volatile oil (15-20 percent), gallotannins (10 to 15 percent), resin, chromone, and eugenin. Eugenol (70 to 90 percent), eugenol acetate, caryophyllenes, traces of esters, ketones, and alcohols are the constituents of volatile oil that is present in oil ducts of clove .

Uses:

1. Expectorant: Clove oil helps loosen and clear mucus from the lungs, making it easier to cough up.
2. Cough suppressant: Clov has natural analgesic and anti-inflammatory properties, which can help reduce cough severity and frequency.
3. Anti-inflammatory: Clove oil's anti-inflammatory properties may help reduce swelling and irritation in the throat, making it soothing for coughs.
4. Antimicrobial: Clov's antimicrobial properties can help combat bacterial and viral infections that cause coughs.
5. Flavoring and fragrance: Clove oil's distinct, warm, and spicy flavor is often used to mask unpleasant tastes in cough syrups.^[25,26]

IX. Brahmi



Figure no. 9 Brahmi




Synonym –Bacopa

Biological Source- It consists of the fresh leaves and the stems of the plant known as *BacopamonieraLinn* .(Herpestismoniera)

Family–*Scrophulariaceae*

Chemical Constituents-Brahmi is found to contain the alkaloids brahmine ,Additionally ,it also contains betulic acid ,stigmasterol ,monnierin and hersaponin.

Uses – It is used as nervinetonic ,in the treatment of asthma ,epilepsy and insanity .it is aperient and also diuretic .it has significant effect on retention of new information and promotes clarity of thought .^[27,28]

Sr. No.	Herbal formulation name	Key ingredients	Dosage	Images of formulation
1)	Zhandutulsi, ginger, mint syrup	Tulsi, shunti,maricha,pippali, tvak, pudina, sukshmaila, yasti, jatiphala, Peppermint	3-4 times a day	
2)	Himalayan tulsi syrup	Tulsi	Adults can consume 10mL of Tulsi Syrup twice a day; two teaspoonsfull Children should take half as much twice a day	
3)	D'Cold natural syrup	Haridra (500.0 mg, Shati 400.0mg Vasa 300.0 mg, Yasti 200.0 mg, Tulsi 200.0 mg, Pippali 50.0 mg, Sunithi 30.0 mg, Ammonium chloride 30.0 mg, Mentha 2.0 mg, Madhu 1.0mg, Flavoured syrup base Q.S	You should only take 4 doses of D Cold syrup in 24 hours.and there should be gap of at least 4 hours between 2 doses.	

CONCLUSION

Traditional medicine and complementary and alternative medicine have become increasingly popular in both developed and developing countries over the past two decades. Due to the current global interest in Traditional medicine, many medicines used by different ethnic groups around the world are rapidly being developed and studied. The information is held in the form of a common name for the botanical name, a

Family name, a used part, an active component and a reference. Scientists from many fields are investigating new plants with antitussive and expectorant effects. Finally, the current study concludes with a holistic view of herbal medicines for the treatment of cough, arguing that both raw and poly-herbal formulations are effective alternatives to modern cough medicines that have diverse effects negative effects. This study also suggests that future clinical trials could be conducted with these polyherbal formulations as well as individual raw drugs to provide clinical evidence of use.^[29,30]

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