

Antifungal herbs found in sirmour- A Review

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Abstract

The Himachal Pradesh is a place of medicinal plant. In Himachal most of people live in rural area and use herbs for treatment of disease. The present study achieved in district Sirmour and local preserved the herbs use as medication and They pass their knowledge from one generation to other. Sirmour district is a hilly and mountainous district and covering an area of 2.825 Km². The main tribes of Sirmour district are Gujjar and language spoken is Hindi and Pahari. The few Anti-fungal herbs contain active constituent which have ability to destroy the cell wall or can reduce the growth of fungal infection. Fungal infection is a most common problem face by people and the allopathic treatment have many sides effect, so antifungal herbs are plays an important role to overcome this issue.

Keywords: Herbs, Medicinal plants, Fungal.

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Introduction

The use of plant as traditional medication directly changes the pattern of use of synthetic drug to a natural plant. The natural plant as a herbal medicine use from long time for treatment or control of disease caused by microorganism. There are variety of herbs found in Himachal Pradesh (Sirmour) that have Antifungal property.

The organism enters in body cause infection that cause serious damage to body. Fungal infection is called as mycoses. The fungal infection can affect many parts of our body like skin, nail, hair and also affect internal part of body. Fungal infection can be mild or serious.

Cause of fungal infection

Fungal infection cause by fungi present in environment (by spore), by contact with skin of affect person, it can also spread by sharing things of affected person and by contaminated water and food. The most common types of fungi that cause infections in humans are Candida, Aspergillus, Cryptococcus, Histoplasma, and Coccidioides[1]

Few risks factor which can cause fungal like weal immune system, age, pregnancy, occupational exposure, antibiotic and corticoid use and Diabetes etc[2].

Types of fungal infections that affect humans' body are as follow:

- Dermatophytosis or Ringworm: (By Dermatophytes)
- Candidiasis or Yeast Infection :(Candida species specially in mouth and vagina)
- Aspergillosis: caused by (Aspergillus species)
- Cryptococcosis: by Cryptococcus species (spread by spores)
- Histoplasmosis: Histoplasma capsulatum
- Pneumocystis pneumonia (PCP) [3]

Herbal medication

Herbs used as a medication for purpose of cure and treatment of any disease from many years. Earlier majority of people from rural area use herbs as a medication but from recent year the use of herbs increases. People use herbal medication over allopathic because herbal medication have no side effect and also available at low cost.

Herbs found in sirmour use as Anti-fungal

Turmeric (*Curcuma longa*): contain curcumin as a active constituent which have anti-microbial property. Turmeric show good anti-fungal property against species like *Aspergillus sp.*, *Fusarium sp.*, *E. turicicum*, *F. oxysporum*, *C. cassiicola*, *Candida albicans*. The study found that curcumin have capacity to reduce the growth of fungal cell. It can be use as an alternative treatment against the fungal infection.[4,5,]

Lemon grass (*Cymbopogon citratus*) It is found that the essential oil from lemon grass have anti-fungal property. Phytochemical in lemon grass cause deformation in fungal cell. The lemon grass found effective against ringworm, athlete's foot, itch and yest infection. against fungal infections such as athlete's foot, ringworm, jock itch and yeast infections. The study shown that lemon grass has antifungal, antibacterial, antiprotozoal, anti-inflammatory, anti-carcinogenic, antioxidant, anti-rheumatic and cardio-protective activities of *C. citrates*. [6,7]

Garlic (*Allium sativum*) It is mention in Ayurveda that garlic have very wide range of medicinal property. The garlic mostly used as a medication for fungal infection in rural area. The phytochemical allicin found in garlic which is use as a anti-fungal agent. There are many garlic formulation available in market for treatment of fungal infection.[8,9]

Ginger (*Zingiber officinale*) The rhizomes of ginger have phytochemical Gingerol have very potent antifungal activity against fungal species like *Rhizoctonia solani*, *R. bataticola*, *Phoma sorghina*, *Colletotrichum gloeosporioides*, *Fusarium pallidorosem*, *F. oxysporum* f. sp. *ciceri*, *Sclerotium rolfsii*, *Sclerotinia sclerotiorum*. The ginger is widely use as spice ih all over the India.[10]

Vinca (*Catharanthus roseus*) The comman name of vinca (bright eyes, cape periwinkle, graveyardplant. The vinca have very good anti-fungal activity against *Aspergillus niger*, *Fusarium moniliform*, *Aspergillus fumigatus* and *Candida albicans*. It's shoot have best activity than flower and root. It contains **catharanthine** which stop the growth of fungal zoospores at the catharanthine mostly found on the leaf surface of vinca

leaves and catharanthine is toxin to insect which is also a inbuilt insect repllent.[11]

Hibiscus (*Hibiscus sabdariffa*) common name (karkade, red tea, red sorrel, Jamaica sorrel, rosella, soborodo (Zobo drink), Karkadi, roselle, and sour tea). The hibiscus has very good anti-dandruff property and also condition the hair. Hibiscus have wound healing property by reducing the microbial growth. [12]

Billy goat weed (*Ageratum conyzoides*) Goat weed have long history of use in medicine for treatment of various disease. The phytochemical billy goat extract includes alkaloids, tannins, flavonoids and phenols have antimicrobial action. They show remarkable antifungal effect specially *Candida* and *Dermatophytosis* species.[13]

Neem (*Azadirachta Indica*) – Neem have phytochemical nimbin and nimbidin shown Antifungal properties. They destroy the cell membrane of fungi and inhibit fungal growth. A study shown that neem extract reduces the growth of *Candida* species of fungal[14]

Aloe vera (*Aloe barbadensis*) - *Aloe barbadensis* have anthraquinones which have anti-microbial activity. The anthraquinones destroy the cell membrane of fungi. *Aloe* has anti-fungal activity against .

These compounds have been shown to have antifungal activity by disrupting the cell membrane of fungi. *Aloe vera* has been shown to have activity against *Candida* species of fungi[14]

Harshingar (*Nyctanthes arbor-tristis*) Also called as Night-flowering Jasmine Harshingar leaves have antimicrobial activity against pathogens, including bacteria, fungi, and viruses. The leaf extract of Harshingar exhibited anti-microbial activity against several strains of bacteria and fungus. [15]

Conclusion

Plants are use as tool for acquire nutrition and treatment of disease from several years. The majority of people relies on herbs for their treatment. Now a day modern medication is also available but the area of interest of many people is toward herbal medication. Our Ayurveda and experience people in this field store huge amount of

knowledge of herbs their identification and also their use as a better medication. Herbs are very effective against fungal infection and are easy to use.

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