

REVIEW ON ANTIFUNGAL PROPERTIES OF *CHITRAKADI TAILA* CONTENTS

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ABSTRACT

Hair is the first most noticeable part of our beauty. Its enhances our personality. It's an important part of our appearance and set the tone for our entire look. Our hair make us beautiful, it definitely adds to our natural beauty. Good hair - do gives us ultimately confidence. Hair loss often is a result of different causes like heredity, anemia, nutrition deficiencies stress, infection like fungal and bacterial, medical problems like thyroid disorder, diabetes mellitus and polycystic ovarian syndrome. Hair loss not only affects our appearance, but also hurts' our pride and affects our psyche. Hair loss is strongly linked with depression and can be an early sign of a heart disease. Now in these day Fungal infection is normally cause of hair fall. It is spread through sharing of fomites like combs, hair brushes and hair clothing. In ayurveda many medicines for fungal infection of hair's. In a classical text Chakradhatgive Chitrakadi Tailafor Shiro Dadru. The present article is insist the role of Chitrakadi Tailacontent for fungus. Each contents of this formulation (Chitrakmool, Danti, Koshataki) having antifungal properties which is consolidate from different ayurvedic texts, review and research article.

KEY WORDS: fungal infection, Chitrakadi Taila, Chitrakmool, Danti, Koshataki, antifungal properties.

INTRODUCTION

There is a wide and extensive description of skin diseases in Ayurveda. Under the heading of *Kushtha roga*, different skin related disorders have been explained in *Ayurveda Samhitas*.

Ayurveda has discussed all skin disease under the common umbrella of *Kushtha*, in other word it can be listed as 'Ayurvedic dermatology'. It is not a vis-à-vis correlation but one can cover up all dermatological manifestations under 18 subtypes of *Kushtha* sub divided under *Maha Kushtha* and *Kshudra kushtha*. *Acharya Charaka* has depicted *Dadru* as a *Kshudrakushtha* and defined as reddish colored *Pidika* in the form of *Mandala* with elevated borders and itching^[1]. *Acharya Sushruta* describes the color of the lesion in *Dadru* more specifically like that of copper or the flower of *Atasi* and mentions that its *Pidika* are in the form of

Parimandala having spreading nature (*visarpanshila*) but slow in progress or chronic in nature (*chirrottham*) with *Kandu*^[2]. *Acharya Vagbhata* mentions that it is *Durvavat Deergha Pratana*, having color like that the flower of *Atasi* and itching and spreads following one lesion by another (*Anushangini*)^[3]. In *Ayurveda Siro Dadru* didn't define separately.

DADRU

The doshas involved are *Kapha Pitta*, signs and symptoms being *Kandu Pidaka* (itching sensation and redness with papules). *Mandala* (circular patches with elevated edges)^[4]. It can be compared to *Tinea* infection. *Tinea* is the name of a group of disease caused by fungus (*Dermatophytes*). They are caused by three genera of fungi that have the unique ability to invade and multiply within keratinized tissue. (Hair, Skin, Nails). The fungi, collectively called "dermatophytes" are alike in their physiology, morphology and pathogenicity.

The three genera are Microsporum, Trichophyton and Epidermophyton. In naming, clinical manifestations due to dermatophytes, 'tinea' precedes the Latin name for the involved site eg: Tinea corporis is a dermatophyte infection of the skin of the trunk and extremities excluding the hair, nails, palms, soles and groin. Infection spreads centrifugally from the point of skin invasion, with central clearing of the fungus, typically resulting in annular lesions of varying sizes. Dermatophyte infections are classified according to the affected body site, Such Tinea captis (scalp), Tinea barbe (beard area), Tinea corporis (skin other than beard area, scalp, groin, hands or feet), Tinea cruris (groin, perineum areas), Tinea pedis (Feet), Tinea Mannum(Hands) and Tinea unguum (nails) [5].

MATERIAL AND METHODS

Ayurvedic literature describes over 200 herbs and minerals to maintain and enhance the beauty of the skin & hair^[6]. Now in these day Fungal infection is normally cause of hair fall. It is spread through sharing of fomites like combs, hair brushes and hair clothing. In *Ayurveda* many medicines for fungal infection of hair's. In a classical text *Chakraddhat* give *Chitrakadi Taila* for *Shiro Dadru*^[7]. The content of *Chiktrakadi Taila* and their action are described below.

CONTENT OF CHIKTRAKADI TAILA

CHITRAK MOOL:

Properties of Manjistha in API & Bhav Prakash Nighantu –

Rasa – Katu.

Guna – Laghu, Ruksa, Tikсна

Virya – Ushna

Vipaka –Katu

Karma – Sothahara, Dipana, Grahi, Pacana, Kaphavatahara, Arsohara, Sulahara. [8][9]

Chitraka pacifies vitiated vata, kapha, diarrhea, inflammation, fever, nervous palsy, hemorrhoids, skin diseases, irritable bowel disease, epilepsy, ammenorrhoea and anemia.

Decoction of the roots of *Chitaka* is used for scabies. It is widely used to treat various skin affections including leprosy, ringworms, dermatitis, acne, sores and ulcers. Most of the time the roots are the part that is being used for skin problems. However, care must be taken as it can also cause skin irritation and vesicular eruptions. Dried and pulverized roots is a remedy for parasitic skin infestation^[10]. Chitrak mool contains Naphthoquinone like (5,7-dihydroxy-8-methoxy-2methyl-1,4-naphthoquinone (plumbagin), Biplumbagin (Chitranon), Chloroplumbagin, Maritnone, Elliptinone, Lapachol, Coumarins like 5-mrthoxyseselin, seselin, suberosin, xanthyletin, xanthoxyletin, Plumbic acid, enzymes like invertase and protease along with other compounds such as plumbazeylanone, droserone, isozeylinone, fructose, glucose, zeylinone.^[11]

Root extract of *P. zeylanica* could be used as an eco-friendly antifungal agent in the control of fungal diseases^[12]. *P. zeylanica* can exhibit varying degrees of therapeutic values in the treatment of fungal, malaria and bacterial infections including cancer. Ethanol extract of *chirak mool* showed a significant antifungal activity^[13]. The wound healing activity of *Plumbago zeylanica* is investigated by Devender Rao Kodati et al and Reddy et al^[14] in rat. This activity is present in methanolic extract of *Plumbago zeylanica*'s roots. Leaves are caustic, vesicant, aphrodisiac, good for scabies stimulant and are also used in sore and swelling^[15]. Root is bitter, laxative, expectorant, tonic, abortifacient, good appetizer, useful in rheumatism, laryngitis, scabies and disease of spleen^[16]

DANTI:**Properties of Manjistha in API & Bhav Prakash Nighantu –***Rasa – Kasaya, Tikta, Madhur.**Guna – Guru**Virya – Ushna**Vipaka –Katu**Karma – Kaphahara, Raktadosahara, Vidhara, Dipana, Sodhaka, Rocaka, Vikasi,* ^{[17][18]}

Baliospermum montanum (Muell – Arg) is an important aromatic medicinal plant belonging to the family Euphorbiaceae includes 280 genera with 730 species with the largest genus Euphorbia. Root, leaf and seeds of B. montanum are used medicinally and are documented from Asian countries, including Nepal, Burma, Malaya and India. The leaf extract is also screened for the antimicrobial property against pathogenic bacteria and fungi ^[19]. The roots of Danti are considered as purgative, anthelmintic, diuretic, diaphoretic, rubefacient, febrifuge and tonic ^[20]. They are also reported to be useful in dropsy, constipation, jaundice, leprosy and skin disease. crude organic and aqueous extracts of only roots of B. montanum have been screened for some pharmacological activities and found to possess anticancer, antimicrobial, free radical scavenging, immunomodulatory, hepatoprotective and anthelmintic potential ^[21]. As per Ayurvedic texts Danti has used some disease like Vātaja Udara, Arsas, Vrana, Asmari, sūla, Krmi, Kustha, Kandū, Pliharoga, Gulma etc. Constipation, anemia, leucoderma, skin disease ^[22].

KOSHATAKI:**Properties of Manjistha in API & Bhav Prakash Nighantu –***Rasa – Tikta, Katu, Alpa Kasyaya**Guna – Tiksna, laghu**Virya – Sita**Vipaka –Katu**Karma – Kaphapittaghna, Malavisodhani, Vamanopaga, Tridosahara.* ^{[23][24]}

Ayurvedic literature revealed that fruits of L. acutangula are used in the treatment of vata, kapha, anemia, leukoderma, tumors and also useful as diuretic and in splenic enlargement^[25]. In the fruits of koshataki Luffeine, vitamins and minerals are present. Lignin (58.7 mg/kg), Tannin (1.84 mg /kg), Phenol (0.62 mg/kg), Flavonoid (0.45 mg/kg) and Alkaloid (0.19 mg/kg)^[26]. And in the seeds Fixed oil, palmitic, stearic, and myristic acids are present^[27]. Lectin and chito-oligosaccharides, Luffangulin, cucurbitacin B, sapogenin and oleanolic acid are also present^[28].

The blood purifying properties of ridge gourd are helpful against pimples and acne problems. Water is put within the fruit of Koshataki(Luffa acutangula) and kept overnight. This taken in dose of 10 ml destroys all types of kushta.

Seeds of L. acutangula has Fungistatic property^[29]. Fruit extract of L. acutangula Antimicrobial activity^[30] Methanolic and aqueous extracts of L. acutangula ^[31].

CONCLUSION

To the best of our knowlwdge, this review is the first attempt to compile and correlate the probable mode of action of *Chitrakadi Tail* content describing both *Ayurvedic* and biomedical point of view. We found that all three herbs evaluated here to act on *Dadru* directly or indirectly as per Ayurveda or modern view. Summarizing these, it can be concluded that contents of *Chitrakadi Tail* has antifungal property. *Chitrak Mool* have present antifungal agent for controlling fungal diseases. In the roots of B. Montanum have anticancer, antifungal, free radical scavenging, immunomodulatory, hepatoprotective and anthelmintic property. Seeds and fruits of *Koshataki* having great efficacy to heal skin disease.

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