

Research Article

**Role of Murchhit Malatyadi taila on dandruff's (*darunak*) fungus
"malassezia furfur"**

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ABSTRACT:

A person with dandruff feel his/her guilty in public, so most of people fighting against dandruff today hence present study is taken.

Darunak is mentioned in shudraroagadhikar, in which aggravation of vata and kapha together, the scalp becomes cracked dry and has itching, this condition is called Darunak. Acharya has mentioned shodhan chikista for Darunak like snehan, swedan, shiravedhan, raktamokshan, nasya, shirobasti, etc. According to modern science Darunak is correlated with dandruff and "malassezia furfur" is the causative factor. Management for that, local antiseptics, use of topical steroids, antifungal treatment. Several studies on the prevalence of dandruff across the world have shown a prevalence of dandruff of up to 50% in the general population. The prevalence maybe increasing sharply with rapid urbanization. Dandruff is the most common scalp disorder in adolescence (post-pubescence) and adulthood, but is rare and mild in children. Steriod creams and lotions used in allopathy are marelly short-term solutions and their prolonged use will cause thinning of the skin. Ayurvedic treatment prevents relapses and removes the tendency towards dandruff.

KEY WORDS: Darunak, Dandruff, Malatyadi tail, Malassezia furfur, MMT

INTRODUCTION:

The concept of 'Science of life' probably makes it the oldest medical science having a positive concept of health which is to be achieved through a blending of physical, mental, social, moral and spiritual welfare. There is no doubt on that the world of today is full of glamour and glory. Thus, the concept of beauty is gaining more and more attention globally, which is defined on such factors, among hair is an important one. Hair adorns the most highlighting part of the body. It has a great anesthetic value and it is the crowning glory of any person. Healthy, beautiful, long and attractive hairs add charm to the personality. Even thousand years ago, in Ayurvedic literature, so many types of daily regimens for hair care have been described in the chapter of Dinacharya and Ritucharya, which includes some procedures like Moordha Taila, Nasya, Snana etc. While, in 21st century, with modernization in each and every walk of life, a person has neither time to think, act for healthy life nor time to follow the proper Dinacharya (specially Moordha Taila) and Ritucharya. "Dandruff" has been attributed to be the result of varied factors

like hormonal imbalance, faulty hair care, pollution etc. Presently employed counter measures are turning short for curing it. The reference of present study of 'Malatyadi taila' in chakradatta shudraroag chikista prakaram, indicated for "Darunak" Darunak is mentioned in shudraroagadhikar, in which aggravation of vata and kapha together, the scalp becomes cracked dry and has itching, this condition is called Darunak.

Drugs for Malatyadi taila

मालतीकरवीराग्निनक्तमालविपाचितम् ।

तैलमभ्यज्जने शस्नामिन्द्रलुप्तापहं परम् ।

इदं हि त्वरितं हन्ति दारुणं नियतं नृणाम्॥१४॥

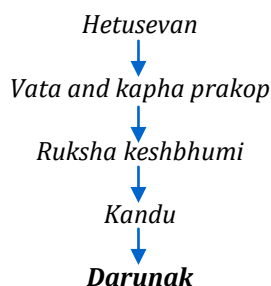
च.द क्षुद्ररोग-चिकित्साप्रकरणम्.

Disease review-

दारुणा कण्डुश रुक्षाकेशप्रजायते ।

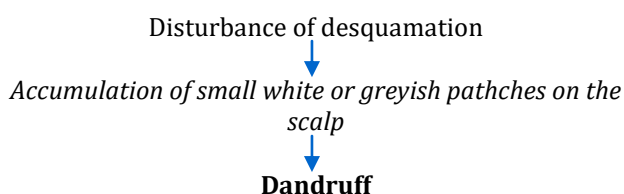
मारुतश्लेष्विदादारुणतत् ॥ भा.प्र १५

By the aggravation of vata and kapha together, the scalp becomes cracked, dry and has itching, this condition is called "Darunak".



According to modern science Darunak is correlated with "Dandruff" Dandruff - is a common skin condition that causes dry white or grey flakes of dead skin to appear in the scalp or hair.

General pathology of Dandruff-



Pathology of Malassezia-

Malassezia globosa reside on the surface of the scalp and in the follicular in fundibulum. These cells secrete hydrolytic enzymes, including lipase, into the extracellular milieu. The lipase enzymes cleave sebaceous triglycerides into free fatty acids and glycerol. The *Malassezia* consume the saturated fatty acids necessary for their proliferation and leave behind an increased amount of irritating unsaturated free fatty acids. These unsaturated fatty acids penetrate into the epidermis, and in susceptible individuals (discussed below) induce a breach of the skin's barrier function, inducing either directly or indirectly irritation and a subsequent hyper-proliferation and flaking. Lipases have been shown to play a key role in the lifestyle of *Malassezia* species on skin.

Symptoms of dandruff-

- Flakiness
- Itching
- Dryness

MATERIALS-

Drugs used for tila taila murchhana

नलिका गन्धनलिका उत्तरदेशे प्रसिद्धा तद् भावे त्वक्ः॥

शा.म.गु.दि. १७॥१८

Table No. 1: Showing Drugs Tila taila murchhana

Sr. No.	Drug name	Latin name	Part use	Quantity
1	Manjistha	<i>Rubia cordifolia</i> Linn.	Kanda	60 gm
2	Haridra	<i>Curcuma longa</i> Linn.	Kanda	15 gm
3	Lodhra	<i>Symplocos racemosa</i> Roxb.	Kanda	15 gm
4	Nagarmotha	<i>Cyperus rotundus</i> Linn.	Twak	15 gm
5	Nalika/substitute twak	<i>Cinnamomum zaylanicum</i> Blume.	Twak	15 gm
6	Aamalki	<i>Embelica officinalis</i> Gaertn	Phala	15 gm
7	Haritaki	<i>Terminalia chebula</i> Retz.	Phala	15 gm
8	Bibhitak	<i>Terminalia bellirica</i> Roxb.	Phala	15 gm
9	Kevada	<i>Pandanus odoratissimus</i>	Patra	15 gm
10	Kumari	<i>Aloe vera</i> Tourn.ex Linn	Patra	15 gm
11	Bala	<i>Vetiveria zizanioides</i> Linn.	Mula	15 gm
12	Tila taila	-	-	1 lit.
13	Jalam	-	-	4 lit.

Table No. 2: Showing Drugs for Murchhit Malatyadi taila (MMT)

Sr. No	Drug name	Latin name	Part use	Quantity
1	Malati	<i>Jasminum grandiflorum</i> Linn.	Pushpa	50 gm
2	Karveer	<i>Nerium indicum</i> Mill.	Mula	50 gm
3	Karanj	<i>Pongamia pinnata</i> Pierre.	Beeja	50 gm
4	Chitrak	<i>Plumbago zeylanica</i> Linn.	Mula	50 gm
5	Murchhit tila taila	-	-	800 ml
6	Jalam	-	-	3200 ml

Table No. 3: Showing Antifungal activity of MMT

Sr. No.	Sample name	Antifungal Activity					
		Zone of inhibition (m.m)					Mean
1	MMT	12	12	13	14	12	12.8

Graph No. 1: Showing Antifungal activity of MMT by Inhibition Zone

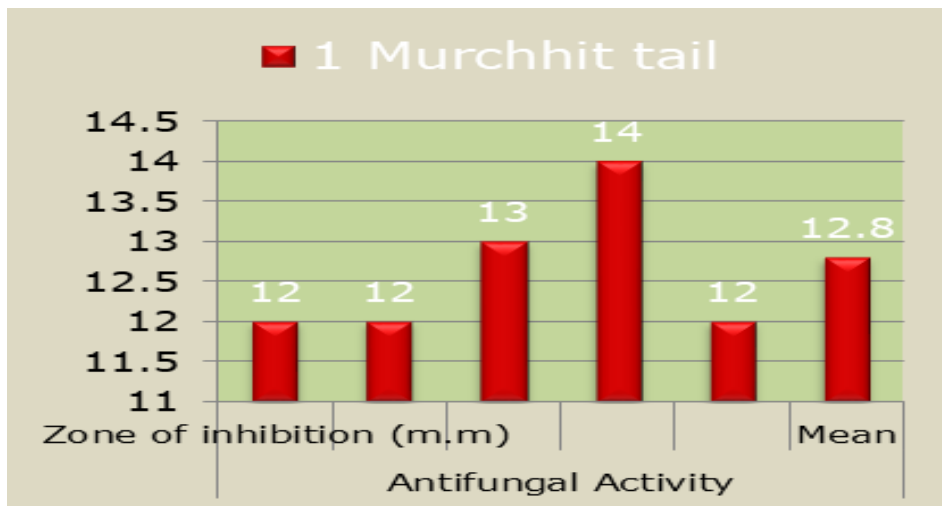


Figure No. 1: Showing Inhibition Zone plate of MMT



DISCUSSION:

In now a days dandruff is one of the serious problem in present life style, peoples are very conscious about their hair care using lots of market product like different types of oils, lotion and conditioner like this. Dandruff is the more social problem than a medical problem. The principal groups with antifungal activity were terpenes, tannins, flavonoids, essential oil, alkaloids, these groups of compounds are important for the physiology of plants contributing properties confer resistance against microorganisms other organisms and help preserve the integrity of the plant with continuous exposure to environmental stressors such as ultraviolet radiation, high temp or dehydration. Plants have developed natural defense mechanism to protect themselves long before the man played an active role in protecting them. It is known that plant synthesize a variety of groups of bioactive compound in plant tissues as secondary metabolites

that have antifungal activity to stop or inhibit the development of mycelia growth, inhibition of germination or reduce sporulation of fungal pathogens each these groups presented variable mechanism of action for example the toxicity of polyphenols in microorganisms is attributed to enzyme inhibition by oxidation of compounds, for essential oil is postulated that cause disruption of the membrane by the action of lipophilic compounds.

The Acharya describes different drugs for murchhana according to types of sneha (ghee/oil) All drugs used for murchhana of tila taila contains phenolic, tocopherol, Vitamin C, essential oils, Vitamin A, lactone and these gives best antioxidant and antifungal effect, keeping this in mind Malatyadi taila was prepared with Murchhit tila taila.

CONCLUSION:

MMT (Murchhit malatyadi taila) have great property against fungus of Dandruff i.e. Malassezia furfur zone of inhibition shows its result as shown in image. Malassezia (formerly known as Pityrosporum) is a genus of fungi. Malassezia is naturally found on the skin surfaces of many animals, including humans. In occasional opportunistic infections, some species can cause hypopigmentation or hyperpigmentation on the trunk and other locations in humans. Murchhit Malatyadi taila (MMT) showed great zone of inhibition in antifungal study for "Malassezia furfur" organism. Murchhana of taila enhances the properties of taila as per classical analytical study done. There are many dosage form like Oils, Lotion, Conditioners are available in market. According to Chakradatta "Malatyadi taila" is one of the choice for the same.

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