



iJRASET

International Journal For Research in
Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 8 Issue: XI Month of publication: November 2020

DOI: <https://doi.org/10.22214/ijraset.2020.31968>

www.ijraset.com

Call:  08813907089

E-mail ID: ijraset@gmail.com

Overview of Dandruff and its Remedies with Allopathy and Ayurvedic Therapy

B. Shyamali¹, K. Sridevi²

¹(Department of Pharmacology, School of Pharmaceutical sciences & technologies, Jawaharlal Nehru Technological University, Kakinada, East Godavari District, Andhra Pradesh, India)

Abstract: We know dandruff is common problem on scalp normally found in more most of the human beings. The purpose of this RESEARCH PAPER is to revisit the literature on dandruff problem and its treatment with AYURVEDA and ALLOPATHY medicines. we have studied the depth of this problem and indentified the causes of dandruff and the best ways of remedies to get rid of this problem. The aim of this article is to investigate into some of causes for development of dandruff and its brief explanation. We also highlight the various treatment options which are available along with some newer formulations. A brief case study was done on various active agents which are used against dandruff like anti-fungal agents, KERATOLYTICAGENTS and ANTI-PROLIFERATIVE AGENTS. A comparative study was conducted on the levels of effectiveness, of natural remedies such as cow's urine, lemon, boiled rice water and NEEM extract.

I. OVERVIEW ON DANDRUFF

The word dandruff in the scientific papers used since it is a term usually applied to skin flakes between the hair of humans,” says Michael J. Benton Professor of Vertebrate Palaeontology University of Bristol. Nobody really observe dandruff while it is forming, trapped between shafts of feathers in the fossil birds and dinosaurs. These are tiny flakes of surface skin, measuring 1 to 2 millimeters. The The dandruff probably evolved during the Middle Jurassic period, during which there was a bloom in new feathery dinosaur species. A new thing came to know after the discovery of some 125 million-year-old dinosaur dandruff fossils. These findings aren't just excuse, but actually explain the mechanism by which dinosaurs did something nearly universal talks about the way the skin sheds. Probably nobody thought much about how dinosaurs shed their skin before these new findings. Let us acknowledge about dinosaurs that were like birds shed their skin in small flakes. All animals rid themselves of old skin and feathers and hair, But during the collective work done using regular and electron microscopes, the close examination on coming across strange white blobs located all over the feathers. Upon further study with the help of ion beam microscope (which revealed the internal structure of the flakes), it was identified that the tiny spots as corneocytes tough cells composed of twisted fibers of keratin, mainly found in modern birds as well as human dandruff.

The dinosaurs, in contrast, possess more tightly packed corneocytes that are not as freely shed. This finding was a “groundbreaking” as we’ve never had such clear insight into the skin of feathered dinosaurs before. The study declares yet another shared feature between non-avian dinosaurs and birds, and its particularly exciting to see these similarities in most regions of the anatomy all the way down to the micro structural level.

II. INTRODUCTION

Dandruff is a common scalp disorder affecting most of the population at the pre-maturity age. It is characterized by presence of corneocytes that form clusters due to their high cohesive power, in the form of flaky white to yellowish scales, along with itching. Scalp is unique human skin and characterized by thick skin layer and has high follicular density and abundant sebaceous glands. The pH of scalp is 5.5, the presence of these glands and providing with some dark and warm environment on the scalp is more prone to mycotic infections like dandruff, seborrhoeic dermatitis and also some parasitic infections like Pediculosis capitis. Dandruff can be cured by using chemically-based anti-dandruff shampoo, herbal based anti-dandruff shampoo. Using Synthetic shampoos can cause side effects, like itching, irritation, loss of hair, nausea, headache and increased scaling. In the Indian medicine system, various plants are used as dandruff remedy like Brahmi, Bengal gram, Reetha, Hibiscus, Liquorice, Marigold. These herbal based formulations are substitutes for synthetic drugs. Over the last few decades natural products contains a tremendous increase of herb based cosmetics. The World Health Organisation is engaged in keeping a definite guidelines for assessment of traditional medicine with major effectiveness.

A. Causes of Dandruff

Micro bacteria mainly Propionibacterium and Staphylococcus are main reason to cause dandruff than fungi. In presence of water and sebum amount Bacterial presence got influenced in turn. Fungus, Malassezia globosa, that metabolizes triglycerides present in sebum by the expression of lipase, resulting in a lipid byproduct oleic acid. During development of dandruff, the levels of Malassezia increase by 1.5 to 2 times of its normal level. Oleic acid penetrates the top layer of the epidermis, the stratum corneum, and leads to an inflammatory response in susceptible people and disturbs homeostasis which results in unchangeable cleavage of stratum corneum cells.

B. Seborrhoeic Dermatitis

In seborrhoeic dermatitis, not just the scalp, but also redness and itching occur around the folds of the nose and eyebrow areas. Lesions consisting of large, silvery scales may be traced in some condition of scalp psoriasis. Inflammation can be characterized by redness, heat, pain, swelling and can cause sensitivity.

Inflammation and scaling outside the scalp usually exclude the diagnosis of dandruff from seborrhoeic dermatitis. However, it is suggested in many reports that a clear link between the two - the mildest form of seborrhoeic dermatitis as dandruff, where the inflammation is minimal and remain in Seasonal changes, stress, and also immune suppression seem to affect seborrheic dermatitis.

C. Mechanism

cluster of corneocytes are called dandruff which have remain a large degree of cohesion with one another and detach as such from the surface of the stratum corneum. A corneocyte is a type of protein complex that is derived from tiny threads of keratin in an organised matrix. The size and abundance of scales are heterogeneous from one site to another and over time. Parakeratotic cells often make up part of dandruff. Their numbers are related to the severity, which may also be influenced by seborrhea.

III. TREATMENT IN ALOPATHY

Various brands of shampoos consisting of active ingredients such Zinc Pyrithione (0.5% YP 2%), Ketoconazole (1% to 2%), Climbazole (1.5%) Selenium Sulphide (1% to 2.5%), Clotrimazole (1%), Clotrimazole (1%) and piroctone Olamine (1%) can cure and get relief from dandruff.

Combination of drugs such as (1) Zinc Pyrithione and Ciclopiroxolamine, (2) Piroctone Olamine and Climbazole (3) Climbazole and Ketoconazole (4) Zinc Pyrithione and Ketoconazole (5) Coal Tar and Salicylic acid etc. available in the market in different brands can give great relief from severe dandruff.

A. Treatment of Dandruff Through Ayurveda

In Ayurveda basing on Pitta –vata and Kapha – vata types of dandruff medicines of both topical and internal solutions are naturally used to mitigate issues like itching and infections while internal medicines relieve you to improve scalp immunity through detoxification and nourishment.

B. Topical remedies to cure Dandruff naturally

- 1) *Methika (FENUGREEK)*: Methika or fenugreek seeds are containing nicotinic acid and protein which is of the top remedies to control dandruff naturally.
 - a) *How to Use*: Soak fenugreek seeds overnight and make a paste in the next morning and add some Ayurvedic anti-fungal herbs like henna, lime juice or yogurt into the paste and apply to scalp. Massage the scalp with this paste for at least 30 minutes and then rinse it off with an Ayurvedic Shampoo. Take some fenugreek seeds and put them in coconut oil and heat the oil and Strain the oil then apply it on the scalp and massage the scalp with warm Methika oil for almost 15-20 minutes.
- 2) *Nimbuka (Citrus Lemon)*: Lemon contains vitamin C, citric acid, zinc, and Flavonoids. It contains antioxidants with antifungal and antibacterial properties. It is an ideal Ayurvedic anti-dandruff treatment.
 - a) *How To Use*: (1) fresh lemon juice, (2) olive oil and (3) fresh ginger juice in equal quantities. Apply this mixture on the scalp roots and gently massage the scalp for a few minutes. Leave it on the hair for an hour and rinse it off with lukewarm water. Prepare a hair mask taking lemon peel powder, multani mitti and sandalwood powder in equal quantities. Apply the paste on to the scalp and leave it for an hour before washing off.

- 3) *Green Gram*: The green gram or mung bean can be used as herbal alternative to anti-dandruff shampoo.
- a) *How To Use*: Apply green gram paste across the scalp and leave it for 15 minutes before washing it off with lukewarm water. For oily hair, add some curd into the paste and apply it before washing it off with Ayurvedic or herbal shampoo.
- 4) *Nimba (Neem)*: It is best called for its antifungal and antiviral properties, which help in combating dandruff.
- a) *How to Use*: Simply massage the scalp with oil made from neem leave on the hair for 30 minutes and wash. Make a paste with Neem leaves, curd in a bowl in the night and apply it all over the scalp. Leave it for 15-20 minutes and then rinse it off. Mix some neem powder with dry amla powder, shikkakai powder and reetha powder in equal quantities to make a thick paste. Apply it on the scalp and wash it off an hour later.
- 5) *Aloe Vera*: It helps to treat conditions like psoriasis, cold sores, burns, etc. very effective and has antifungal and antibacterial properties.
- a) *How To Use*: prepare a thick gel made from aloevera extracted naturally and spread it across the scalp. Leave it for overnight and make a wash in the next morning with an herbal shampoo.
- 6) *Amla*: Amla is one of the greatest sources of vitamin C and very effective in curing dandruff.
- a) *How To Use*: Make a paste from Amla powder, Tulsi leaves and water then Apply the above mixture across the scalp and make a hair wash after 30 minutes.

IV. CONCLUSION

The above article improves the understanding of dandruff and enlightens new facts in order to unfurl the awareness, create potential for new herbal treatment options, and effectively control the most exploited scalp disorder.

REFERENCES

- [1] Turner GA, Hoptroff M and Harding CR: Stratum corneum dysfunction in dandruff. International journal of cosmetic science.
- [2] Borda LJ and Wikramanayake TC: Seborrheic dermatitis and dandruff: a comprehensive review. Journal of clinical and investigative dermatology 2015.
- [3] <https://pubchem.ncbi.nlm.nih.gov/compound/26041>; Last accessed on 9th November, 2016.
- [4] Tripathi R, Rizvi A, Pandey SK, Dwivedi H and Saxena JK: Ketoconazole, a cytochrome
- [5] European journal of medicinal Chemistry 2014, Prasher P, Singh P, Pawar K, Vikramdeo KS, Mondal N and Komath SS: Production of amino acid appended indoles: Appreciable anti-fungal activity and diffidence of ergosterol biosynthesis as their probable mode of action.
- [6] <https://pubchem.ncbi.nlm.nih.gov/compound/37907#section=Top>; Last accessed on 9th November, 2016.



10.22214/IJRASET



45.98



IMPACT FACTOR:
7.129



IMPACT FACTOR:
7.429



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089  (24*7 Support on Whatsapp)