

## Efficacy of indicated homeopathic medicine in cases of pityriasis capitis in age group of 15 – 60 years : A Case Series

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### ABSTRACT

**Background :** The scalp, with its thick skin, high follicular density, and abundant sebaceous glands, is prone to conditions like dandruff due to its warm, oily environment. Dandruff is characterized by clustered corneocytes forming white to yellow flakes, often caused by the fungus *Malassezia furfur* through lipid breakdown and disrupted cell shedding. Bacterial imbalance and non-microbial factors such as dry/oily skin, product sensitivity, and skin conditions like eczema also contribute. Treatment includes symptom relief using keratolytics (e.g., salicylic acid) and antifungals like ketoconazole and zinc pyrithione. Homoeopathic research supports remedies like Potassium Bromide and Selenium Sulphide, though traditional repertories may overlook some effective options.

**Objectives:** To evaluate the reduction in Pityriasis Capitis using the Global Improvement Scale and to find out the most commonly indicated medicine in its management.

**Materials and Methods:** The case series study included 45 cases selected through simple random sampling from the OPD and IPD of the college hospital, as well as from peripheral OPDs and health camps.

**Results:** 33 patients i.e 73% patients improved while 12 patients i.e. 27% patient did not show marked improvement.

**Conclusion:** Homoeopathic medicines are efficacious in management of Pityriasis capitis **Keywords:** Global Improvement Scale, Homoeopathy, *Malassezia furfur*, Pityriasis Capitis, corneocytes.

### INTRODUCTION

Scalp is unique among skin areas in human. It is characterized by thick skin layer with high follicular density and abundant sebaceous glands. The pH of scalp is 5.5 and that of a hair shaft is 3.67 <sup>[1]</sup>

Definition - Dandruff is a common scalp disorder, characterized by presence of corneocytes that form clusters due to their high cohesive power, in the form of flaky white to yellowish scales, accompanied by itching <sup>[2]</sup>

The scalp's warm, dark environment and the presence of sebaceous glands make it susceptible to mycotic infections such as dandruff, seborrhoeic dermatitis, and parasitic infestations like *Pediculosis capitis*. While scalp disorders may not cause significant physical morbidity, they often have a considerable psychological impact, affecting self-esteem and confidence. Even minor changes, such as hair greying, can influence an individual's self-image. Common scalp conditions include fungal and bacterial infections like *Tinea capitis* and *Pediculosis capitis*. <sup>[3]</sup> Fungal (*Malassezia furfur*) - It is the

primary fungal culprit in dandruff. It contributes via two main mechanisms. Lipid degradation: It activates lipase, which breaks down scalp sebum into fatty acids. Saturated fatty acids support fungal growth, while unsaturated ones (like oleic and arachidonic acid) irritate the scalp and trigger inflammation, leading to flaking. Disrupted cell shedding: *Malassezia* interferes with enzymes that help slough off dead skin cells, causing corneocytes to clump and form visible flakes.<sup>[4]</sup>

Bacterial - An imbalance between scalp bacteria—*Propionibacterium acnes* and *Staphylococcus epidermidis*—may also contribute to dandruff.<sup>[5]</sup>

Non-microbial factors contributing to dandruff include damage to the scalp's outer layer (stratum corneum), sensitivity to oleic acid, dry or oily skin, infrequent shampooing, reactions to hair products, and underlying conditions like eczema or psoriasis.<sup>[6]</sup>

Treatment of dandruff can be done by adopting any or all of the following strategies. Treatment strategies include - Treatment of the Symptoms - This comprises of employing anti-proliferative like coal tar and keratolytic agents like Salicylic acid.<sup>[7]</sup>

Treatment of the Cause: This primarily includes use of anti-fungal agents like Ketoconazole<sup>[8]</sup>, Zinc Pyrithione<sup>[9]</sup>, Climbazole<sup>[10]</sup>, Selenium sulphide<sup>[11]</sup>

Smith, Baker, and Williams found a low-potency oral remedy (Potassium Bromide 1X, Sodium Bromide 2X, Nickel Sulfate 3X, Sodium Chloride 6X) significantly improved dandruff in a 10-week placebo-controlled, cross-over trial ( $P < 0.004$ ; post cross-over  $P < 0.01$ ), with no side effects. Teleman tested Selenium Sulphide 8X in shampoo over four weeks. While the treatment group improved ( $P < 0.01$ ), overall group comparison showed no significant difference.<sup>[12]</sup>

Although standard repertories Schroyens list 36 remedies for dandruff, including Graphites, Sulphur, and Natrum muriaticum, effective remedies like Nickel and Bromide were not included, indicating the need for repertory updates.<sup>[13]</sup>

Additional remedies noted by Master include *Ceanothus*, *Kali sulph*, *Lycopodium*, *Petroleum*, and *Pilocarpus*.<sup>[11]</sup>

## **MATERIAL AND METHODS**

### **Study Design:**

The research was conducted as a case series study involving 45 participants who were selected through simple random convenient sampling.

### **Eligibility criteria:**

Subjects aged 15 to 60 years, presenting with symptoms such as scalp flaking, irritation, itchiness, or greasiness, were included after providing informed consent.

### **Participants:**

The study was carried out over a period of six months at M(N)HMC OPD, Nashik, as well as at peripheral OPDs and health camps. Patients who did not provide consent or who had skin conditions such as psoriasis, atopic or irritant contact dermatitis, and tinea capitis were excluded. Data were collected using a structured case-taking format and supported by homoeopathic literature, journals, and repertories.

Ethical standards were maintained by obtaining informed consent from all participants or their guardians, and no medico-legal issues were encountered.

**Intervention:**

Information was gathered from patients, their attendants, physician observations, and physical examination findings. Diagnosis was made based on the totality of symptoms. Following detailed analysis, evaluation, and repertorisation, individualized homoeopathic medicines were prescribed.

**ASSESSMENT AND OUTCOME MEASURES:**

Dandruff score were assessed using the Global Improvement scale [15] at baseline and after six months of treatment. The scores were analyzed to determine the intervention's effectiveness, with pre- and post-treatment comparisons revealing significant changes in dandruff score.

**STATISTICAL ANALYSIS AND RESULTS**

Chi square test was applied since the scale used had qualitative assessment for six scalp areas involved the critical value  $38.6 > 11.07$ , the p value is significant, global improvement rating the Calculated Chi-square  $65 >$  than table value  $9.4$ , therefore the result is significant. For the patient acceptability critical value  $52.1 > 7.8$ , the p value is significant and for grades of itching the critical value  $56.1 > 9.8$ , the p value is significant. Paired T test was also applied since there was two related groups the values came out to be  $2.015$  which is greater than critical value, hence result is significant.

**Improved & Not Improved**

| <b>Result</b> | <b>Frequency</b> |
|---------------|------------------|
| Improved      | 33               |
| Not Improved  | 12               |

Figure no-1- Improved &amp; Not Improved

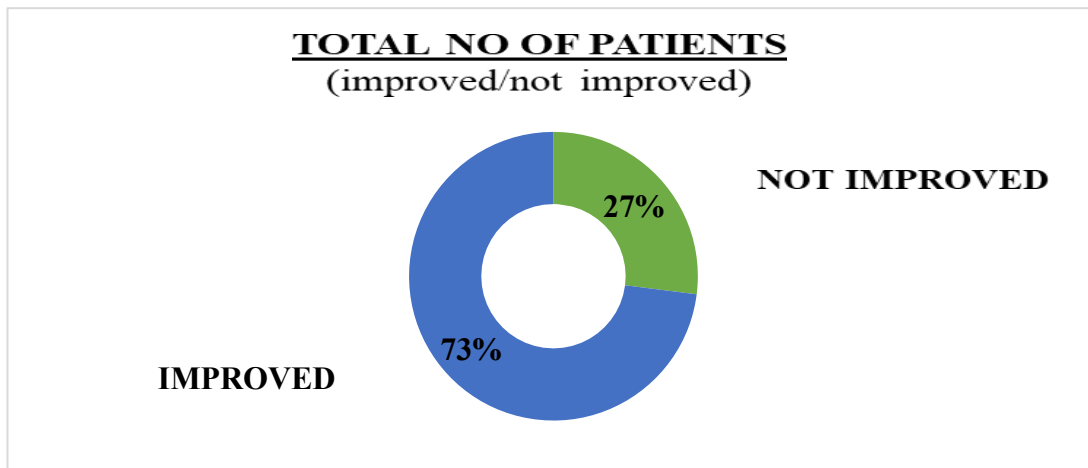


Figure no-2 Gender distribution Table no-2. Gender distribution

| GENDER | FREQUENCY |
|--------|-----------|
| Male   | 6         |
| Female | 39        |

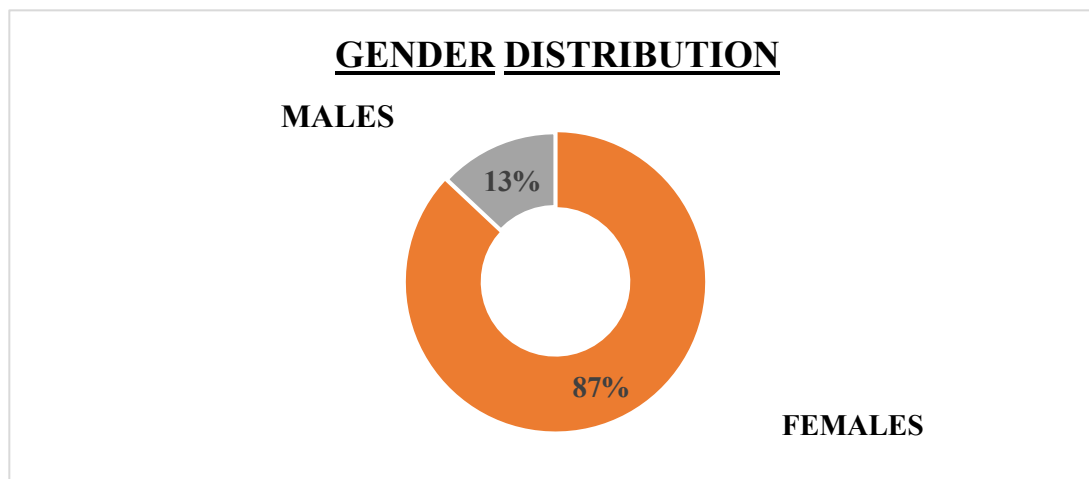
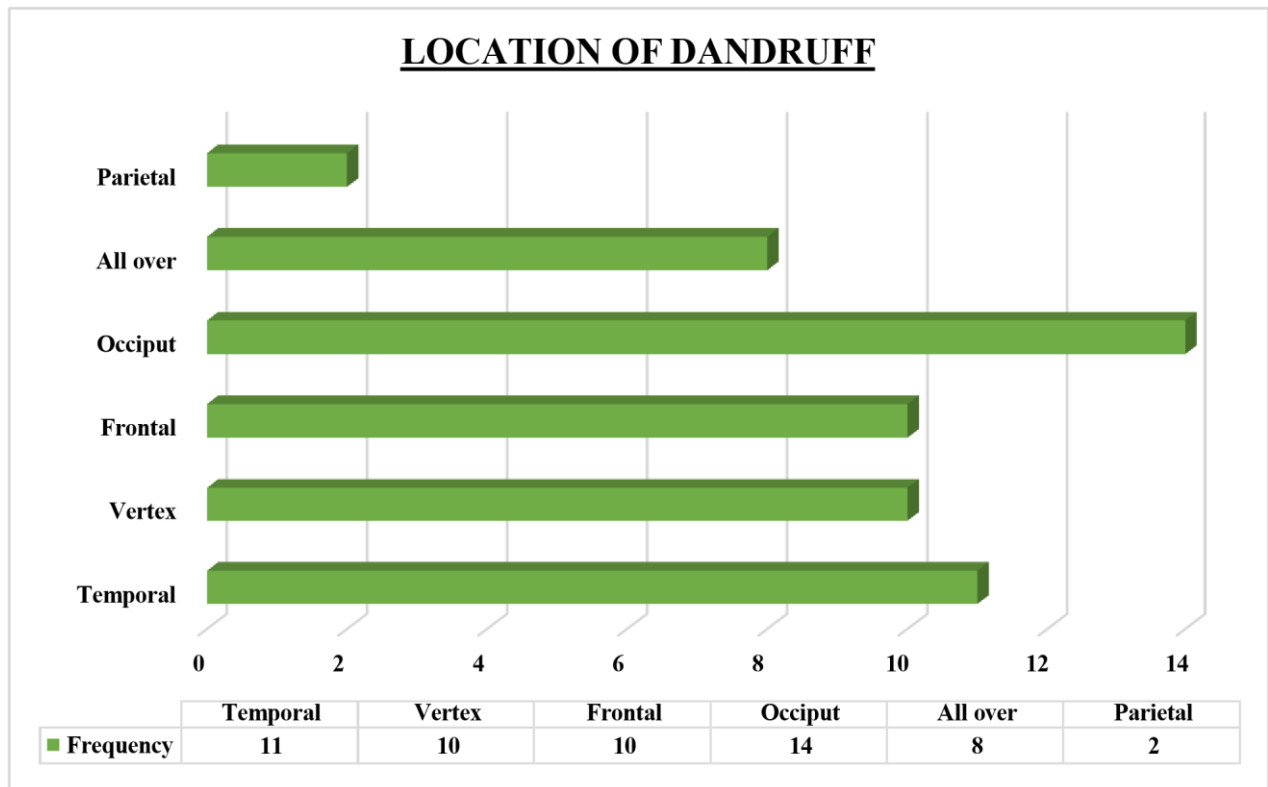


Table no 2- Location of Dandruff

| Location Of Dandruff | Frequency |
|----------------------|-----------|
| Temporal             | 11        |
| Vertex               | 10        |
| Frontal              | 10        |
| Occiput              | 14        |
| All over             | 8         |
| Parietal             | 2         |

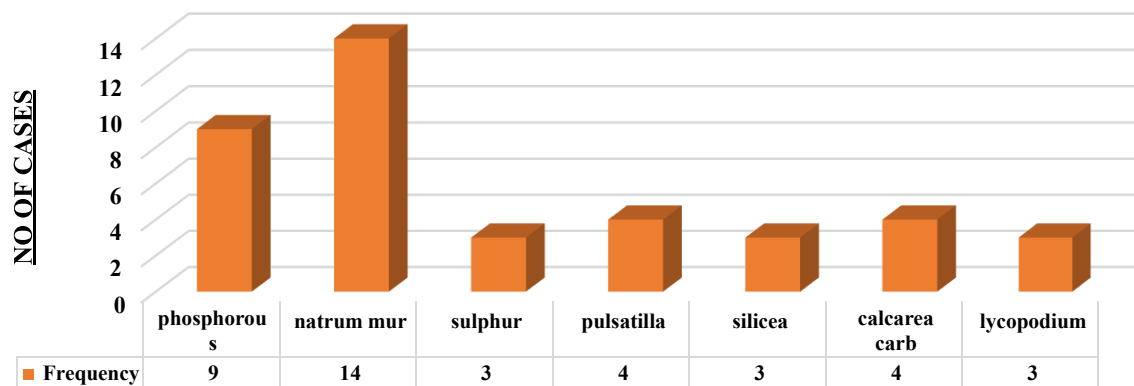
Figure no 2- Location of Dandruff



**Table no 3 – Commonly Indicated Remedy**

| Remedy prescribed | Frequency |
|-------------------|-----------|
| Phosphorous       | 9         |
| Natrum mur        | 14        |
| Sulphur           | 3         |
| Pulsatilla        | 4         |
| Silicea           | 3         |
| Calcarea carb     | 4         |
| Lycopodium        | 3         |

**Figure no-3 Commonly Indicated Remedy**

**REMEDY PRESCRIBED****DISCUSSION**

Dandruff (Pityriasis Capitis) is a widespread dermatological condition affecting up to 50% of the global population. It involves structural changes in the stratum corneum and inflammation, primarily caused by *Malassezia furfur*.<sup>[17]</sup>, which breaks down sebum into fatty acids, leading to scalp irritation and flaking.<sup>[15-16]</sup>

Bacterial imbalances and non-microbial factors—such as scalp barrier damage, sensitivity to oleic acid, scalp type, environmental irritants, and hormonal influences—also contribute to its severity. Although more common in urban, hot, and humid environments, dandruff is considered a mild form of seborrheic dermatitis.<sup>[18]</sup>

Homeopathic remedies like *Kali sulphuricum*, *Badiaga*, *Thuja occidentalis*, and *Natrum muriaticum* are prescribed based on individual symptoms, with studies indicating improvement in up to 73% of cases. As a recurring, multifactorial condition, dandruff requires ongoing research to develop more effective and lasting treatments.<sup>[11]</sup>

**CONCLUSION**

In the study amongst the participated subjects about 13% i.e. 6 patients were male and 87 % i.e. 39 patients were female. The most common location of dandruff was occipital region i.e. in 14 cases followed by vertex and frontal 10 cases each. About 8 patients had dandruff all over the scalp and 2 patients over parietal region. The most common medicine prescribed were Natrum muriaticum in 14 cases, and phosphorous in 9 cases. Other remedies prescribed were Nux vomica, Silicea, Calcarea carb, Carcinosin, Pulsatilla, Sulphur, Graphites etc. About 33 patient's i.e 73% patients improved while 12 patients i.e. 27% patient did not show marked improvement.

**SCOPE OF FURTHER RESEARCH**

Future studies should involve larger, diverse populations to ensure generalizability to investigate the impact of homoeopathic medicine on assessment of dandruff. Long-term followups can assess the sustainability of therapeutic outcomes. Comparative studies with conventional treatments and gender- or age specific analyses can offer more personalized approaches.

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**CONFLICT OF INTEREST** - No Conflict of Interest

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