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## Evaluating The Role Of Individualized Homoeopathic Medicine In Management Of Acne Vulgaris: A Case Series Study.

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### **ABSTRACT:**

Acne vulgaris is a common dermatological disorder affecting individuals across different age groups, often causing both physical and emotional distress. Homoeopathy, being a holistic system of medicine, emphasizes individualized treatment based on a patient's unique symptomatology and constitutional makeup. **Objective:** The primary objective of this study was to evaluate the role of individualized homoeopathic medicine in the treatment of acne vulgaris. The secondary objective was to identify the most commonly indicated homoeopathic medicines in such cases. **Methods:** This case series study was conducted with 30 cases of acne vulgaris, selected through stratified random sampling from the OPD/IPD of a Dhanvantari Homoeopathic Medical College and Hospital & Research Centre, peripheral OPDs, schools, and health camps. Each case was assessed and treated with individualized homoeopathic medicines. The severity of acne was evaluated using Cook's scale before and after treatment. Results: Out of the 30 patients, 25 (83.33%) showed significant improvement in terms of reduction in the number of eruptions, severity of lesions, pain, itching, and inflammation. However, 5 (16.67%) did not show marked improvement. The most frequently indicated remedy was Natrum muriaticum (in 8 cases), followed by Sulphur, Pulsatilla, Sepia, Medorrhinum, Calcarea carbonica, Silicea, Ignatia, Phosphorus, Lycopodium, Tarentula, Carcinosis, Hepar sulph, and Mercurius solubilis. The mean Cook's scale score reduced from 3.866 to 0.333 post-treatment, with a statistically

significant p-value of 1.782. **Conclusion:** Individualized homoeopathic treatment showed promising results in the management of acne vulgaris, indicating its potential as an effective therapeutic approach.

**Keywords:** Acne vulgaris, Homoeopathy, Individualized Medicines

## **INTRODUCTION: -**

Acne vulgaris is a chronic inflammatory disorder of the pilosebaceous unit, characterized by the formation of comedones, papules, pustules, nodules, and in some cases, cysts and scarring. It predominantly affects adolescents and young adults, though it can persist or even begin in adulthood. Acne most commonly affects the face, chest, and back—areas rich in sebaceous glands—and can significantly impair an individual's quality of life. The condition not only influences physical appearance but also has profound psychological implications, including low self-esteem, anxiety, and depression. The etiology of acne is multifactorial, involving increased sebum production, follicular hyperkeratinisation, colonization by *Cutibacterium acnes*, and inflammation. Hormonal factors, dietary habits, stress, genetic predisposition, and environmental influences also contribute to its development and persistence.

Management of acne typically involves topical retinoids, benzoyl peroxide, antibiotics, hormonal therapy, and in more severe cases, systemic isotretinoin. However, these conventional treatments can be associated with various side effects such as skin dryness, irritation, gastrointestinal disturbances, antibiotic resistance, and teratogenicity, thereby limiting long-term compliance and acceptability. In light of these challenges, alternative systems of medicine, such as homoeopathy, are gaining interest for their holistic and individualized approach. Homoeopathy is founded on the principle of “similia similibus curentur” or “like cures like,” wherein remedies are selected based on the totality of symptoms and the individual's constitutional profile. The aim is to stimulate the body's own healing mechanisms, thereby restoring balance and health. Homoeopathic treatment not only considers the physical symptoms of acne but also addresses the patient's emotional and mental state, lifestyle, and susceptibility. Individualized homoeopathy tailors remedies specifically to each patient rather than adopting a generalized treatment plan. This case-sensitive methodology may offer advantages in chronic, recurring conditions like acne vulgaris, where individual response to treatment can vary widely. Remedies such as *Natrum muriaticum*, *Sulphur*, *Pulsatilla*, *Sepia*, *Calcarea carbonica*, and others have shown promising clinical relevance in acne cases when selected based on careful repertorization and case analysis. The present study is a case series of 30 individuals diagnosed with acne vulgaris, treated with individualized homoeopathic medicines. The objective was to evaluate the effectiveness of these remedies in managing symptoms such as lesion count, inflammation, pain, and itching. The study also aimed to identify the most frequently indicated remedies and assess the proportion of cases showing improvement versus non-responders. By analyzing real-world outcomes in a clinical setting, this study seeks to contribute evidence towards the role of homoeopathy in managing acne vulgaris and encourage further research in this area.

## **DEFINITION: -**

Acne is a chronic inflammatory disease of the pilosebaceous unit resulting from androgen-induced increased sebum production, altered keratinisation, inflammation, and bacterial colonisation of hair follicles on the face, neck, chest, and back by *Propionibacterium acnes*.<sup>[1]</sup>

## **ETIOLOGY: –**

Factors that can lead to acne are as follow: Sebaceous glands produce more sebum, hyper cornification of the sebaceous ducts, colonization of *Propionibacterium acnes* in the pilosebaceous ducts and inflammation.<sup>[2]</sup>

## **EPIDEMIOLOGY: -**

Moderate-to-severe acne affects around 20% of young people and severity correlates with pubertal maturity. Acne may be presenting at a younger age because of earlier puberty. It is unclear if ethnicity is truly associated with acne. Acne persists into the 20s and 30s in around 64% and 43% of individuals, respectively. The heritability of acne is almost 80% in first-degree relatives. Acne occurs earlier and is more severe in those with a positive family history.<sup>[3]</sup>

## **HISTOLOGY OF SEBACEOUS GLAND: -**

Sebaceous glands are absent in the hairless thick skin of the palms, soles, and the sides of the feet inferior to the hairline. They derive from hair follicles. They occur more frequently in the dermis of the face, forehead, and scalp. They are outgrowths of the external sheath of the hair follicle above the insertion point of the arrector pili muscle of the follicle. Usually more than one gland opens to one third of the upper portion of the hair follicles canal. <sup>[4]</sup>

### **PATHOPHYSIOLOGY OF ACNE VULGARIS:**

Seborrhea increase androgen concentration due to genetic factors as well as because of attainment of puberty all ultimately leads to the increased sebum production. On puberty, body's androgen production increases. In the sebocyte, androgens are synthesized as well as reuptake. These androgens then form androgen-receptor complex within the cytoplasm. These then enter nucleus via nucleopore and alter the specific gene sequence and thus affect the reading rate in the result of which sebum production by the sebocyte increases. The sebum thus produced flow through the pilosebaceous ducts and reaches the skin surface. During the flow, this sebum supplies its linoleic acid to the keratinocytes of the hair follicle. Due to this, there occurs local linoleic acid deficiency which leads to the impairment in the follicular barrier. This allows the free fatty acid formed by P. acnes by action of its enzyme lipase or by other mechanisms on triglycerides, to enter the follicle. The impairment in the follicular wall can also occur because of oxygen stress or by generation of free radicals by phagocytes in response to invading microorganism. The entered free fatty acids are highly chemotactic and lead to the production of various cytokines such as IL-8 and IL-1 $\alpha$  which lead to inflammation and upward regulation of keratinocyte proliferation. This leads to ductal hypercornification and formation of dense horny lamellae. Retention-proliferation hyperkeratosis results because of it. Retention-proliferation hyperkeratosis first form microcomedone, which further grow and convert into comedone and this comedone further develop and form acne. <sup>[5]</sup>

### **CLINICAL FEATURES OF ACNE VULGARIS:**

Clinical presentation varies and includes open or closed comedones, papules, pustules, or nodules extending over the face and/or trunk. <sup>[6]</sup>

### **TYPES OF LESIONS OF ACNE VULGARIS:**

It is differentiated by two types of lesions: non-inflammatory, open and closed comedones, as well as inflammatory papules, pustules, nodules, and cysts. The comedones are of two types: a comedo that is closed is a whitehead, while another that is open is a blackhead type.

- **Blackheads:** Blackheads are non-inflammatory acne lesions that develop on the skin due to excess oil and dead skin cells obstructing hair shafts. A blackhead is referred to as an open comedo because the skin surface remains exposed and has a dark look, such as black or brown. Blackheads are mild acne that usually appears on the face, arms, chest, neck, back and shoulders.
- **Whiteheads:** Whiteheads are small bumps and non-inflammatory acne lesion that develops on the skin when oil, bacteria and skin cells block the opening of hair follicle pores. Whiteheads are referred to as closed comedones since the bumps are closed and white. Whiteheads can develop anywhere on the body, but they are most frequent in the T-zone, which includes the nose, chin, and forehead.
- **Papules:** Inflammation is the response of healthy skin tissue to bacteria, excess oil production, and excess androgen activity, and its symptoms include swelling, heat, redness, and pain. These inflamed lesions are known as papules and are considered an intermediary step between non-inflammatory and inflammatory lesions. Papules show on the skin as a little pink lump typically less than 5 mm in diameter and not pus-filled.
- **Pustules:** Pustules are small bumps and an inflammatory lesion that occurs on the skin by clogging the pores with excess oil and dead skin cells. Pustules are inflammatory lesions that contain fluid or pus in their centre. Often, they manifest as white pimples surrounded by red, irritated skin. Pustules can form on any part of the body, although they are most prevalent on the shoulders, chest, back, face, neck, underarms, pubic region, and hairline.

- **Nodules:** Acne nodules are a severe form of inflammatory acne that develops when the pores become clogged by bacteria, excess oil and dead skin cells. This type of combination usually causes whitehead or blackhead comedones, but if the infection penetrates underneath the surface of the skin and affects the pores as well as the surrounding area to become red and swollen and appear as a small bump. Acne nodules are not treatable with over-the-counter medications alone and might remain for weeks or months. Nodular acne is similar to papule acne, but its diameter is bigger than 5–10 mm, and it often develops on the face's jaw line or chin.
- **Cysts:** Cystic acne is a severe kind of inflammatory acne that appears beneath the skin due to blocked pores caused by the accumulation of bacteria, dry skin cells, and oil. People with the oily skin of all ages are most affected. Cyst typically appears as large white/red painful lesions filled with pus, sometimes leading to scars. Cystic acne can appear anywhere on the body, although it most frequently affects the face, arms, shoulders, back, chest, and neck. Most people with cystic acne experience both inflammatory and non-inflammatory acne symptoms. <sup>[7]</sup>

### **Diagnosis of Acne Vulgaris:**

Non inflammatory acne lesions are either closed or open comedones. Acne that manifests as non-inflammatory lesions is not classified severe unless the number, size, and extent of such lesions are so overwhelming as to warrant the designation. Inflammatory acne lesions are papules, pustules, and nodules. These lesions are classified as papulopustular, nodular, or both. The severity grades assigned (mild, moderate, and severe) are based on lesion count. The term severe acne may be applied if ongoing scarring or persistent lesion drainage is involved or if sinus tracts are present. <sup>[8]</sup>

Scales used for grading the severity of acne vulgaris are as follows:

- Pillsbury scale: It give classification of the acne based on severity ranging from 1 (least severe) to 4 (most severe).
- Cook's acne grading scale: It utilizes images to grade severity ranging from 0 (least severe) to 8 (most severe).
- Leeds acne grading technique: It counts and categorizes inflammatory and non-inflammatory lesions grade ranging from 0 to 10. <sup>[9]</sup>

The ICD-10 code L70.0 is the medical classification for acne vulgaris. Chronic inflammatory disease of the pilosebaceous apparatus marked by an increase in sebum secretions causing lesions most frequently occurring on the face, chest, and back; the inflamed glands may form small pink papules, which sometimes surround comedones so that they have black centres (blackheads), or form pustules or cysts (whiteheads). <sup>[10]</sup>

In 1979, Cook, Centner and Michaels evaluated the overall severity of acne on a 0-8 scale anchored to photographic standards that illustrate grades 0, 2, 4, 6 and 8. <sup>[11]</sup>

Acne grading method by Cook et al., using photographic standards	
Grade	Description
0	Up to 3 small scattered comedones and/or small papules are allowed.
2	Very few pustules or 3 dozen papules and/or comedones; lesions are hardly visible from 2.5 m away.
4	There are red lesions and inflammation to a significant degree; worthy of treatment.
6	Loaded with comedones, numerous pustules; lesions are easily recognized at 2.5 m.
8	Conglobata, sinus or cystic type acne; covering most of the face.



**PSYCHOLOGICAL IMPACT OF ACNE VULGARIS:**

Along with acne, having acne scars is a risk factor for suicide and also may be linked to poor self-esteem, depression, anxiety, altered social interactions, body image alterations, embarrassment, anger, lowered academic performance, and unemployment. Studies have also shown that the psychological impact of acne appears to affect more females than males. Facial appearance has an important role in self-perception, as well as in the interaction with others; face lesions cause a significant impact in women's quality of life. The psychological impact of acne is generally significant and largely underestimated; stress during professional and private life, anxiety and sleep quality, in particular, have a reciprocal relationship with disease susceptibility and severity. Suicidal ideation was found in 6-7% of acne patients. Psychological issues such as social dysfunction such as reduced/avoidance of social interactions with peers and opposite gender also reported. Acne can negatively influence the intension to participate in sports. Psychiatric symptoms such as somatization, obsession, sensitivity, hostility, phobia, paranoid ideation, and psychoticism were associated with this skin disorder. The degree of impairment in QOL significantly increased with increase of clinical severity of acne, with presence of post acne hyper pigmentation and scarring. In a study in Middle East, 23% of acne female students reported that they had difficulty in sports because of acne; while, a study among Scottish students found that 10% of acne sufferers avoided swimming and other sports because of embarrassment. The management of adult female acne should encompass not just medical treatment of the symptoms, but also a comprehensive, holistic approach to the patient as a whole, her individual lifestyle factors and the impact of acne on her quality of life. Compared with heterosexuals, sexual minorities report higher rates of depression, suicidal ideation, and body image issues. Consequentially, sexual minorities with acne may be a group at high risk for development of mental health problems. <sup>[12]</sup>

**STANDARD MANAGEMENT: -**

Topical retinoids, Benzoyl peroxide, Topical antibiotics, Topical sulphur and sodium sulfacetamide, Topical azelaic acid, Topical retinoids. <sup>[13]</sup> Sometimes along with Oral Antibiotics, Hormonal therapies and Isotretinoin. <sup>[14]</sup>

**HOMOEOPATHIC MANAGEMENT: -**

In Organon of medicine 6<sup>th</sup> edition Dr. Hahnemann explained about case taking of mental diseases in \$210 to \$230.

Homeopathic treatment also looks upon person's constitution, tendencies and origin of that particular disease apart from taking symptomatology of the patient suffering from any disease. So basically homeopathic medicines tend to affect process of disease. Medicines selected after careful understanding of patient can be able to manage acute spell of the disease also. Patient can leave better life if he had spotted homeopathy treatment, as medicines are totally harmless.

Hepar Sulphur, Kali Bromatum, Calcarea Phosphoricum, Nux Vomica, Asterias Rubens, Belladonna Dulcamara, Mercuris Solubis, Graphites, Bovista are well indicated homoeopathic remedies for the treatment of acne vulgaris. <sup>[15]</sup>

But, an appropriate homoeopathic remedy should be administered after a thorough case taking and case understanding, on the basis of characteristic individualistic symptoms and constitution.

**METHODOLOGY: -**

- **Study Setting:** Institutional OPD and Peripheral OPD.
- **Selection of samples:** - 30 cases.
- **Inclusion Criteria:**
  1. Adolescents of both sexes having signs and symptoms of acne
  2. Age group of 11 to 40 years.
  3. Willing to give informed consent.

- **Exclusion Criteria:**
  1. Age less than 11 years or more than 40 years.
  2. Patient on long term steroid treatment.
- **Withdrawal Criteria:**
  1. If patient starts with any other system of medicine during the duration of study.
  2. If patient is irregular for the follow-up.
  3. If patient is not co-operative.
- **Study Design:** A case series study.
- **Intervention:** With Homoeopathic medicine.
- **Selection of tools:**
  1. ICD 10 diagnostic Criteria.
  2. Cook's Scale was used to assess severity of acne.
- **Data Collection:**

History was taken from patient itself, parents, and from physician's observation. General physical exam will be conducted to know the health status and rule out symptoms in cases.
- **Statistical Techniques and Data analysis:**

Student's 't' test was used to determine the utility of Homoeopathic medicines in the improvement of the cases having Acne Vulgaris. Paired 't' test was used to test statistically the change in the severity of acne in the patients having Acne Vulgaris.
- **Ethical issues, if any:**

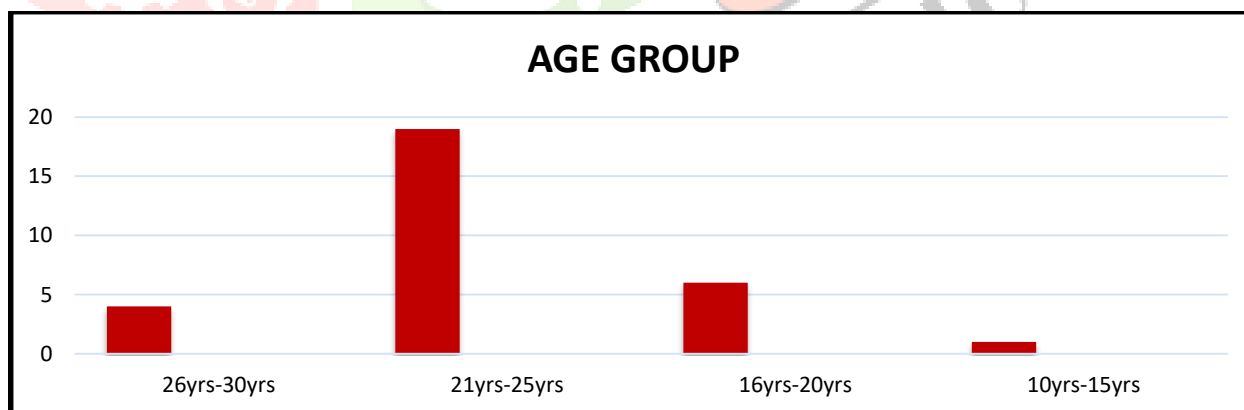
Ethical clearance was obtained from the ethical committee of the institute.

## **OBSERVATIONS & RESULTS: -**

### **Charts/Figures/Diagrams**

**Table No. 1 - Age Group Distribution in Case Study**

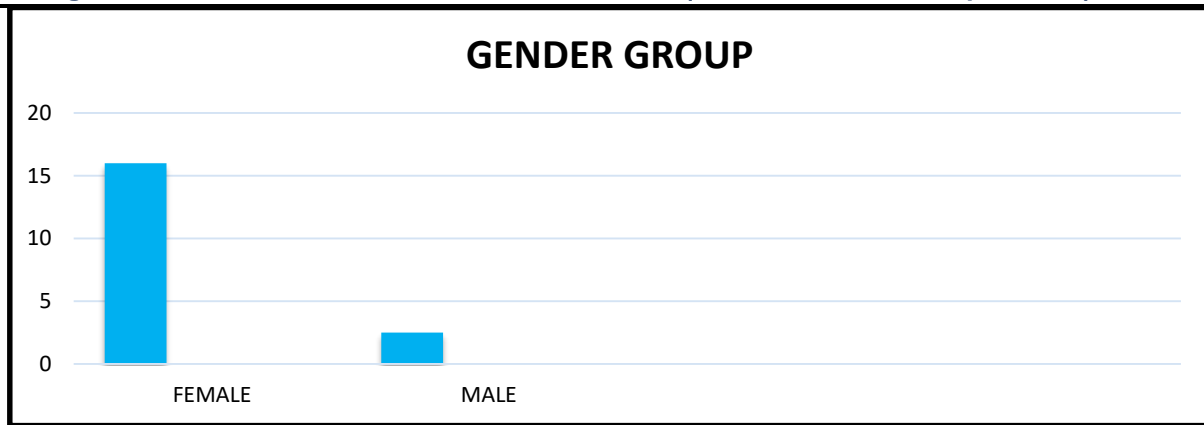
Age Group	No. of cases
10yrs-15yrs	4
16yrs-20yrs	19
21y --rs-25yrs	6
26yrs-30yrs	1



**Figure No. 1- Age Group Distribution in Case Study**

**Table No. 2- Gender Group Distribution in Case Study**

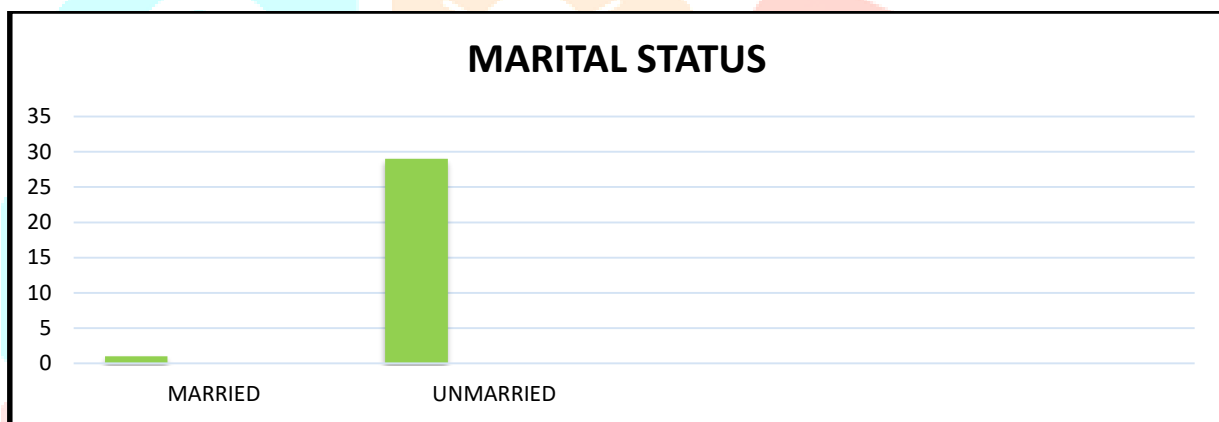
Gender Group	No. of cases
Female	29
Male	01



**Figure No. 2-** Gender Group Distribution in Case Study

**Table No. 3** Marital Status Distribution in Case Study

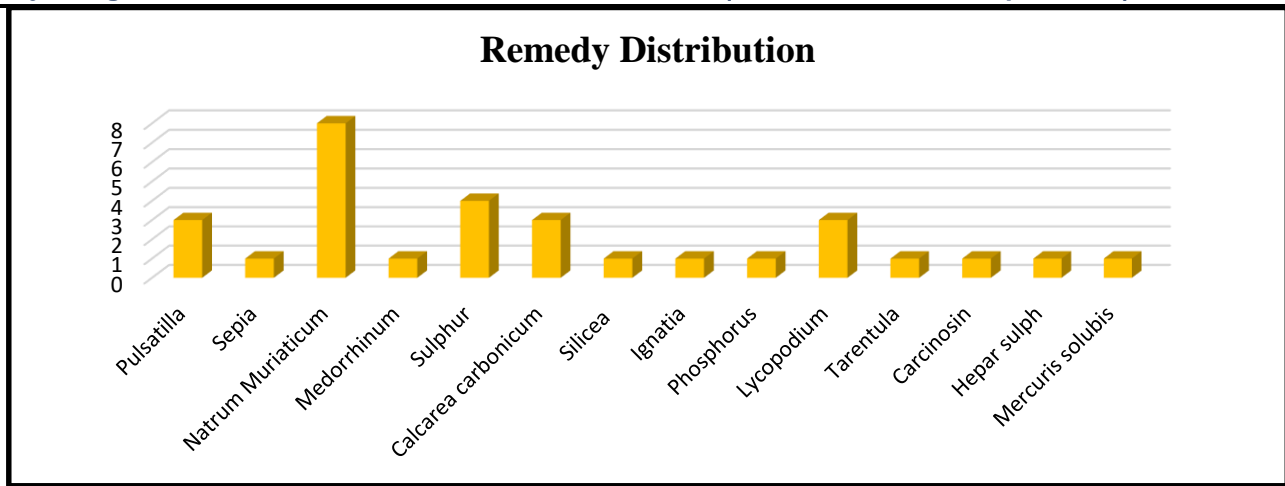
Marital Status	No. of cases
Married	01
Unmarried	29



**Figure No. 3-** Marital Status Distribution in Case Study

**Table No. 4-** Homoeopathic prescription / Medicine

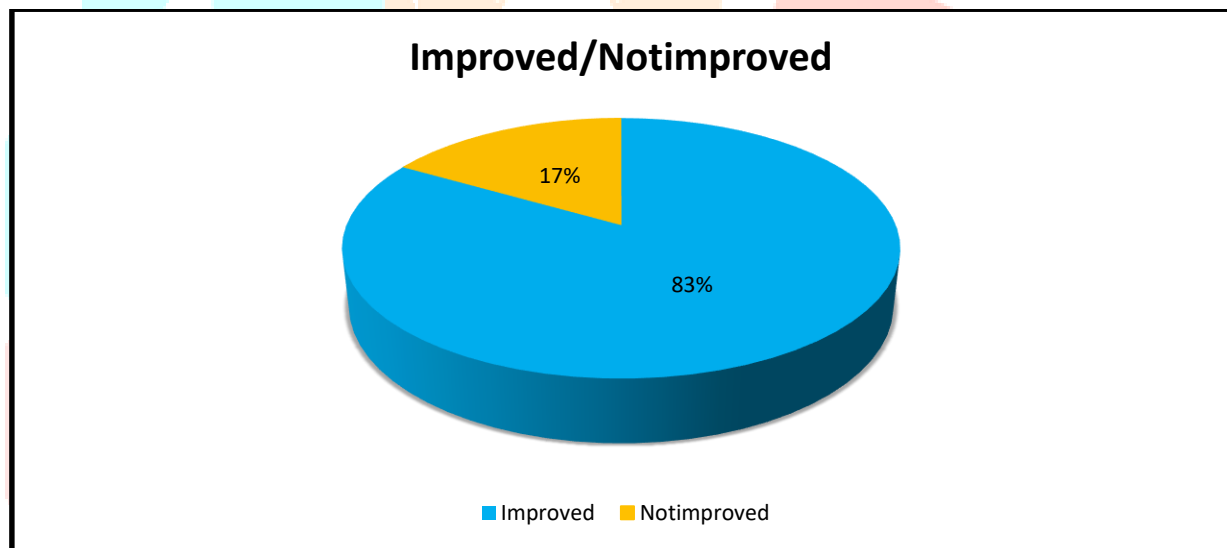
Remedy	No. of cases
Pulsatilla	03
Sepia	01
Natrum Muriaticum	08
Medorrhinum	01
Sulphur	04
Calcarea carbonicum	03
Silicea	01
Ignatia	01
Phosphorus	01
Lycopodium	03
Tarentula	01
Carcinosin	01
Hepar sulph	01
Mercuris solubis	01



**Figure No. 4-**Homoeopathic prescription / Medicine

**Table No.5-**Case study result after Homoeopathic prescription

Improved/ Not Improved	No. of cases
Improved	25
Not Improved	05



**Figure No. 5-**Case study result after Homoeopathic prescription



**Table No. 6** Images of Acne Vulgaris before and after treatment

Sr. No.	Before treatment	After treatment
1.		
2.		
3.		
4.		
5.		

**STATISTICAL ANALYSIS**

Student's t - test was applied for statistical analysis.

- Total of 30 patients (01 male and 29 females) were observed and t - test was applied. The change in the severity of acne, scored with the Cook's scale, assess the improvement of the patients.

- Calculated value of  $t$  (12.172) was greater than table value of  $t$  (1.782).
- Therefore, we conclude that severity of acne can be reduced by the use of homoeopathic medicines.
- Hence it concludes that homoeopathy plays a major role in improving the complaints of the patients having Acne vulgaris.

### **DISCUSSION: -**

Acne vulgaris is a chronic inflammatory skin disorder affecting the sebaceous glands and hair follicles, commonly seen in adolescents and young adults. It presents as comedones, papules, pustules, nodules, and cysts, mainly on the face, chest, and back. The condition is influenced by multiple factors, including hormonal fluctuations, excess sebum production, bacterial proliferation (*Cutibacterium acnes*), inflammation, and lifestyle factors such as diet and stress. While conventional treatments like antibiotics, retinoids, and hormonal therapies are available, they may have side effects, making homoeopathy a preferred alternative for many individuals seeking a holistic approach. Homoeopathy treats acne by addressing the root cause rather than merely suppressing symptoms. It considers the individual's physical, emotional, and psychological aspects, ensuring a long-term cure rather than temporary relief. The remedies are selected based on the totality of symptoms, constitution, and underlying factors contributing to acne. This study aimed to evaluate the role of homoeopathic medicine in the management of acne vulgaris through a case series approach, using Cook's Acne Grading Scale to assess treatment outcomes. The results revealed that 25 out of 30 cases showed improvement, demonstrating the potential effectiveness of individualized homoeopathic treatment. Among the prescribed remedies, Natrum muriaticum was the most frequently indicated medicine in 8 cases, suggesting its significance in managing acne, particularly in individuals with emotional stress, excessive oiliness, or hormonal imbalances. The observed improvements highlight the holistic nature of homoeopathy, which considers both physical symptoms and underlying emotional and systemic factors. Acne vulgaris is influenced by multiple factors such as hormonal changes, stress, and dietary habits, and homoeopathic remedies are selected based on the totality of symptoms. This approach may have contributed to improvements beyond just skin symptoms, leading to overall well-being in most patients. However, 5 cases did not show any significant improvement, which suggests the variability in response to homoeopathic treatment. This could be due to incorrect remedy selection, deep-seated hormonal imbalances, chronicity of the condition, or other contributing factors such as diet and lifestyle. Studies and clinical observations suggest that homoeopathy can help reduce acne severity, prevent recurrences, and improve skin health without side effects. By restoring the body's internal balance, it not only clears acne but also improves overall well-being. This study suggests that homoeopathy may be effective in treating acne vulgaris. However, further studies are necessary to confirm these findings and refine treatment strategies for better therapeutic outcomes.

### **CONCLUSION: -**

Out of 30 cases, 25 cases, that is 83%, showed improvement, while 5 cases, that is 17%, showed no improvement. Keeping in mind the complexity of acne vulgaris and factors affecting treatment outcomes, the cases with no improvement may have been influenced by underlying systemic issues, improper remedy selection, or individual variations in response. This study demonstrates that Natrum Muriaticum was the most frequently indicated remedy in 8 cases and played a significant role in acne management. The findings suggest that homoeopathic medicine has potential efficacy in treating acne vulgaris. However, further studies with a larger sample size and controlled trials are necessary to validate these results and explore the broader application of homoeopathy in dermatological conditions like acne vulgaris.

**Conflict of Interest:** none

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