

# Evaluating the efficacy of Kali bromatum in treating Adolescent Acne: A Clinical study

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**Abstract:-** Acne is a skin condition where the hair follicles get blocked due to sebum and dead skin cells.<sup>1</sup>

This study aimed to assess the effectiveness of Kali bromatum in treating acne among adolescents aged 13-20 years.

## ➤ Methodology:

A total of 30 patients participated in the study. Different potencies were administered based on the severity and duration of the disease. 30 potency in 11 patients, 200 in 17 patients, and 1M in 2 patients. Assessment of acne was done using the Global Acne Grading System.

## ➤ Results:

19 patients showed good improvement and 11 patients showed moderate improvement. The study was significant with p value  $5.354 \times 10^{-21}$  which is less than 0.05.

## ➤ Conclusion:

Kali bromatum has proven potential in treating adolescent acne.

**Keywords:-** Homeopathy, Kali bromatum, Acne, Adolescent.

## I. INTRODUCTION

Acne vulgaris is a chronic inflammation of the pilosebaceous units. It is a common disorder that is prevalent during adolescence. It is seen in both males and females, but more severe in males. It persists until the early 20s.<sup>2</sup> Adolescent acne is common in males whereas post-adolescent acne is predominant in females. The prevalence of acne in adolescents ranges from 35% to 90%.<sup>3</sup>

### A. Etiology:

The hypersensitivity of the sebaceous gland to androgens and the presence of Cutibacterium acnes bacteria adds further inflammation.<sup>4</sup>

The triggering factors for acne are excess oil production, bacteria, hormonal imbalance, and genetics.<sup>5</sup>

### B. Clinical Features:

- First acne starts as a comedo. Comedons are small papules with small black plugs of keratin commonly called blackheads.
- These comedons develop into inflammatory papules or pustules and sometimes nodules or cysts.
- Location of acne: Most commonly seen on the face, with other areas being the back, shoulder, and upper chest.
- The acne may leave behind scars or hyperpigmentation.<sup>2</sup>

### C. Grading of Acne:<sup>4</sup>

- Grade 1: Comedons, divided into two types, open and closed. In open comedones, the pilosebaceous orifice gets blocked with sebum and forms papules with a small black plug of keratin. Closed comedons form a smooth dome-shaped papule.
- Grade 2: Inflammatory lesions present as a small papule with erythema.
- Grade 3: Pustules
- Grade 4: Many pustules coalesce to form nodules and cysts.

### D. Different forms of Acne Vulgaris:<sup>4</sup>

- **Acne conglobate:** It is a severe form of nodulocystic acne in young males. It is seen on the face, shoulders, back, chest, upper arms, buttocks and thighs.
- **Acne fulminans:** It is a rare acute skin disorder. It presents as a painful, ulcerating, and hemorrhagic form of acne.
- **Acne excoriee:** It is seen in young women with underlying psychiatric disorders. It presents as mild acne with comedones, which are picked and excoriated leading to scarring.
- **Infantile acne:** It is seen in the age group of 3 to 6 months due to increased androgen production by the immature adrenal gland. Androgen levels revert to normal by the age of 1 to 2 years, with improvement in acne.

*E. Treatment of Acne:*<sup>6</sup>

➤ *There are Two Types of Acne Treatments:*

- Topical applications: Topical medications like Benzoyl peroxide, Salicylic acid, and Retinoids are used.
- Oral treatment: It includes antibiotics, Isotretinoin, contraceptives, hormone therapy, and steroids.

But these treatments have side effects like causing mild irritation on the skin, using contraceptives and hormone therapy can cause disturbance in menstruation.

In Homeopathy there are a good number of remedies for the treatment of acne, one such remedy is Kali bromatum

*F. Kali bromatum:*<sup>7</sup>

Common name: Bromide of potassium

Action on skin: It produces acne, especially at puberty and menses. Acne is seen on the face and chest with scars. Large bumps and boils which become indolent.

*G. Assessment of Acne:*<sup>8</sup>

Assessment of acne is done using the Global Acne Grading System

Table 1 Global Acne Grading System

Location	Factor	Type of lesion	Grade
Forehead	2	No lesion	0
Right cheek	2	Comedo	1
Left cheek	2	Papule	2
Nose	1	Pustules	3
Chin	1	Nodules	4
Chest and upper back	3		

- Local score= factor × Grade
- Global score= Sum of local score

Table 2 Grading of Acne Severity

Grading	Score
Mild	1-18
Moderate	19-30
Severe	31-38
Very severe	More than 39

➤ *Aim:*

- To evaluate the effectiveness of Kali bromatum in the treatment of Acne

➤ *Objectives:*

- To evaluate the effectiveness of Homeopathy in the treatment of Acne.
- To evaluate the effective potency in the treatment of acne.
- **Null Hypothesis:** Kali bromatum is not effective in the treatment of Acne
- **Alternate Hypothesis:** Kali bromatum is effective in the treatment of Acne

**II. METHODOLOGY**

- Study setting: Patients were taken from OPD and Camps of MNR Homeopathic Medical College and Hospital, Sangareddy.
- Sample size: 30 patients
- Study period: 6 months
- Study design: Experimental study

- Sample design: Purposive sampling

➤ *Inclusion Criteria:*

- Subjects of age group 13-20 years of both gender
- Patients willing to take part in the study.

➤ *Exclusion Criteria:*

- Patients diagnosed with other skin disorders.

➤ *Method of Collection of Data:*

Patients are selected based on the inclusion criteria. All the patients were given kali bromatum in different potencies like 30, 200, and 1M depending on the severity and duration of the disease. Follow-up was done once in 15 days or 1 month for 6 months.

Assessment of Acne was done by using the Global Acne Grading System.

### III. RESULTS AND OBSERVATIONS

➤ *The following Observations were made*

Table 3 Distribution as per Potency

Potency	No. of Cases	
	No of cases	Percentage
30	11	36.6%
200	17	56.6%
1M	2	6.6%

30 potency was given to 11 patients, 200 potency was given to 17 patients, and 1M was given to 2 patients. 200 potency was used more frequently.

Table 4 Distribution as per Gender

Gender	No. of cases	
	No of cases	Percentage
Male	16	53%
Female	14	47%

- Among 30 cases, 16 were males and 14 were females.

➤ *Statistical Study:*

A paired t-test was applied for this study. The calculated t value was 24.56 which is more than the critical value  $\alpha$  5% ie 2.045. p value was  $5.354 \times 10^{-21}$  which is less than 0.05. So, the null hypothesis was rejected. The study is highly significant.

Hence the present study proves that Kali bromatum effectively treats Acne in adolescents.

### IV. DISCUSSION

Acne vulgaris is a common disorder caused due to the blockage of the hair follicles in the skin. The blockage involves the sebum.<sup>9</sup> Acne is commonly seen in adolescents and continues till the age of 40 years, but occasionally seen.

In this study, Kali bromatum was investigated in the treatment of Acne in adolescents.

➤ *Patient Demographics and Potency Distribution:*

➤ *The 30 Patients were Distributed across Different Potencies as follows:*

- 11 patients received Kali brom 30
- 17 patients received Kali brom 200
- 2 patients received Kali brom 1M

➤ *Gender Distribution: 16 Patients were males and 14 Patients were Females.*

Overall the treatment outcome was promising with the reduction in acne. The degree of improvement in patients are as follows:

11 patients showed moderate improvement, where treatment should be given beyond 6 months and with

increasing potency. 19 patients showed good improvement, and among them, 4 patients got after treatment scoring as nil.

### V. CONCLUSION

This study provides preliminary evidence supporting the use of Kali bromatum in treating adolescent acne. While all potencies showed efficacy, the 200-potency appeared to be most effective for the majority of patients.

Future studies should focus on longer follow-up periods, and placebo-controlled designs to better understand the role of kali bromatum in acne management. Additionally, different homeopathic remedies can be assessed in the treatment of acne.

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