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COMPARATIVE EFFECTIVENESS OF INDIVIDUALIZED HOMOEOPATHY AND STANDARD BRONCHODILATORS IN THE MANAGEMENT OF PAEDIATRIC ASTHMA

Homeopathy

Dr. Siddharth Saurabh Professor, Dept. of Repertory, Ahmedabad Homoeopathic Medical College, Ahmedabad

Dr. Shilpi Agrawal Associate Professor, Dept. of Organon of Medicine, Ahmedabad Homoeopathic Medical College, Ahmedabad

ABSTRACT

Background: Paediatric asthma continues to be a major public-health concern worldwide, with increasing prevalence and a substantial effect on day-to-day functioning. Although conventional bronchodilators are effective for rapid relief during exacerbations, concerns about prolonged dependence and adverse effects have encouraged interest in complementary approaches. **Objective:** To evaluate individualized Homoeopathy used as an adjunct to conventional bronchodilators versus bronchodilators alone in paediatric asthma. **Methods:** This single-blind, comparative, prospective interventional study enrolled 100 children (6–15 years) at Sainath Hospital, Ahmedabad. Participants were randomized to Group A (Homoeopathy + Bronchodilators) or Group B (Placebo + Bronchodilators). Outcomes were assessed with the Asthma Control Questionnaire (ACQ) over 12 months. **Results:** Improvement occurred in both groups; however, Group A showed a significantly greater decline in ACQ scores (p0) and a pronounced reduction in bronchodilator dependence (p = 7.4x10-20) than the control group. **Conclusion:** Individualized Homoeopathic treatment appears to be an effective add-on intervention, improving asthma control and decreasing reliance on conventional medication among paediatric patients.

KEYWORDS

Paediatric asthma, Asthma Control Questionnaire, Homoeopathy, Bronchodilators

1. INTRODUCTION

Asthma is a long-standing inflammatory disorder of the airways marked by heightened tracheobronchial responsiveness to multiple triggers. The World Health Organization estimates that approximately 235 million people are affected globally, and a large share of cases—nearly 50%—begin before 10 years of age. In India, the burden is rising steadily, particularly in densely populated, low-income urban settings.

Asthma is a chronic inflammatory disorder of the airways in which the tracheobronchial tree shows heightened reactivity to numerous triggers. Physiologically, it produces diffuse narrowing of the air passages that can resolve spontaneously or with treatment, and clinically it presents with episodic breathlessness, cough, and wheeze. Asthma is widespread and carries a substantial social burden; although prevalence is increasing in many regions, it remains uncertain whether this reflects a true rise in incidence or population growth. The World Health Organization estimates that about 235 million people worldwide are currently living with asthma. [1]

Bronchial asthma may occur at any age, but it most often begins early in life, with roughly half of cases starting before 10 years. In childhood, boys are affected more frequently than girls (about 2:1), though this difference tends to diminish by around 30 years of age. Over recent decades, the prevalence has continued to rise, particularly among children. [2] Recurrent wheeze, cough, shortness of breath, and chest tightness are common and can significantly restrict activities and impair quality of life. [3]

From an aetiological perspective, asthma is heterogeneous; both genetic predisposition (atopy) and environmental influences—such as viral infections, occupational exposures, and allergens—play roles in its onset and persistence. [4] It is also the most frequent respiratory complaint in childhood and is reported to affect approximately 15–20% of children. Globally, a marked rise in asthma prevalence has been observed over the past decades, although rates have stabilized or changed in some high-income settings. [5]

In children aged 5–14 years, asthma ranks among the leading chronic conditions when measured using disability-adjusted life years (DALYs). [6] Indian studies similarly suggest that many children are affected and that prevalence may be increasing faster than previously appreciated. [7] Although concerns persist that asthma continues to rise in developed nations, the economic and humanitarian burden is often greater in developing countries, where prevalence is also increasing—particularly among children in low-income urban households exposed to indoor environmental triggers. Reported estimates show a mean prevalence of 7.24 (SD 5.42), a median of 4.75% (IQR 2.65–12.35%), and an overall weighted mean prevalence of 2.74; prevalence among children aged 13–14 years has been noted to be lower than in younger children aged 6–7 years. [7,8] Given the lack of nationally representative information on prevalence, risk factors, and prognosis, further public health research remains a priority.

Even when symptoms can be controlled for many children, asthma remains an important contributor to school absenteeism, restricted activity, and stress for both the child and family. Management therefore aims to enable children to lead as normal a life as possible by controlling symptoms and preventing exacerbations, optimizing pulmonary function, and limiting treatment burden and adverse effects. Standard paediatric asthma care primarily includes bronchodilators and corticosteroids. [9] However, these medicines may be associated with side effects and may not fully address symptom control or disease progression in all patients. [10] As a result, many parents and caregivers consider complementary or alternative approaches, including homeopathy. [11]

Allergen desensitization (immunotherapy) using extracts of suspected allergens has been widely used; however, evidence from controlled studies is limited and overall effectiveness has not been consistently demonstrated. Homeopathy, developed in the late eighteenth century, is traditionally based on the concept of "like cures like." [12] Within this system, individualized homeopathic prescribing involves selecting remedies according to each patient's characteristic symptom totality and general state of health. [13]

Homoeopathy is described as having a role in asthma care during both acute episodes and the chronic, asymptomatic phase, with the potential to reduce subsequent recurrences in terms of frequency, duration, and intensity. An important aspect of individualized Homoeopathy is the "package of care effect," referring to the combined contribution of the medicine and the consultation process—an area that warrants further investigation. Prolonged Homoeopathic management has also been reported to help decrease dependence on inhalers and bronchodilators. [14] Although bronchial asthma may be triggered by diverse stimuli, the precise mechanisms underlying paroxysmal wheezing remain incompletely understood; conditions with less clearly defined causes are often viewed as areas where Homoeopathy may offer symptomatic relief and opportunities for further research. [15]

The conventional paediatric management commonly uses bronchodilators and corticosteroids. While these agents provide reliable symptomatic relief, they may not prevent progression of the condition and can be associated with side effects—factors that often lead caregivers to explore complementary options such as Homoeopathy. In accordance with the principles outlined in Hahnemann's *Organon of Medicine* including the law of similars (Aphorism 26) and the requirement to individualize the totality of

characteristic symptoms when selecting a remedy (Aphorisms 3 and 7),Homoeopathy emphasizes individualized holistic prescribing.[12] The present study examines whether this individualized approach can improve outcomes and reduce dependence on bronchodilators.

2. MATERIALS AND METHODS

2.1 Study Design

A single-blind, comparative, prospective interventional (pre-test/post-test) design was used. The work was carried out over 12 months at Ahmedabad Homoeopathic Medical College.

2.2 Participants and Sampling

Using a prevalence of 4.75% and a 95% confidence level, the required sample size was calculated as 100 participants.

- **Inclusion Criteria:** Children aged 6-15 years with a prior diagnosis of asthma and currently taking prescribed bronchodilators.
- **Exclusion Criteria:** Children with major developmental defects or congenital anomalies, and those who did not provide consent.

2.3 Intervention

- **Case Group (Group A):** Received individualized Homoeopathic medicines (centesimal potencies) in addition to the ongoing bronchodilator regimen.
- **Control Group (Group B):** Received placebo while continuing the existing bronchodilator regimen.

3. RESULTS AND ANALYSIS

Among enrolled participants, males constituted a higher proportion (61% male; 39% female), aligning with commonly reported patterns in paediatric asthma epidemiology.

3.1 Remedy Distribution

In the intervention arm, *Bryonia Alba* and *Pulsatilla* were the most commonly selected remedies, indicating varied symptom profiles and individualized prescribing across cases.

Table 1: Frequency of Commonly Prescribed Remedies

Remedy	No. of Cases
Bryonia Alba	8
Pulsatilla	8
Arsenicum Album	6
Spongia	5
Antim Tart	4
Calcarea Carbonicum	4

3.2 Statistical Outcomes (ACQ Scores)

ACQ domain scores (symptoms, activity limitation, and reliever usage) were compared between groups using t-tests.

Table 2: Two-Tailed t-Test Comparing Mean ACQ Score Changes (Case vs. Control)

Parameter	Case Group Mean Diff.	Control Group Mean Diff.	P-Value (Two-Tail)
Total ACQ Score	2.71	0.73	6.6×10^{-31}
Bronchodilator Use	1.42	0.08	2.9×10^{-13}

Within Group A, the mean ACQ score for bronchodilator use decreased markedly from **1.52** to **0.06** after treatment, whereas Group B showed only a modest change from **1.38** to **1.30**.

4. DISCUSSION

Overall findings indicate that bronchodilators alone offer measurable benefit, yet adding individualized Homoeopathic management yields substantially better clinical improvement. The extremely small p-values observed in the intervention group imply that the changes are unlikely to be attributable to chance and are consistent with an intervention effect.

Importantly, the study evaluated medication "dependence." Children receiving Homoeopathy alongside standard care were able to reduce the frequency of reliever inhalations considerably. These results support the proposition that Homoeopathy may contribute to management across acute and chronic phases by lessening episode intensity and duration.

5. CONCLUSION

Individualized Homoeopathy may be considered a useful complementary option in paediatric asthma care. Along with symptomatic control, it appears to help reduce reliance on conventional bronchodilator relievers. Future investigations should include larger randomized controlled trials to better validate these findings and clarify how such approaches might be incorporated into routine paediatric respiratory practice.

6. CONFLICT OF INTEREST

There are no conflicts of interest.

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