

# Efficacy of Homoeopathic Medicines in Paediatric Allergic Respiratory Disorders

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**Abstract**—Children become most vulnerable to Allergic Respiratory Disorders because they have no choice over the environment. About 40% of children's parents do not take treatment others take treatment from modern line like antihistamines, steroids to which the child become dependent & a variety of complications arise. So there is a real need to study Allergic Respiratory Disorders & the homoeopathic medicines which helps in treating it.

**Keywords**:-Allergy, Allergen, Hypersensitivity

## 1 INTRODUCTION

Allergic Respiratory Disorders – is a hypersensitivity reaction at the level of respiratory system. Allergy may be considered as immunologically mediated disease of man directed at unidentified exogenous or endogenous antigens. It is one of the most common illnesses affecting the mankind especially in urban area. It is precipitated by air pollution, food adulteration, and stress of modern living and by some individual unknown factors.

The term “Allos” mean altered and “Eargen” means reaction, hence allergy means altered reaction.

## 2 MECHANISMS

- 1) Hereditary predisposition:-In 60% of cases of hypersensitivity there is a family history of allergy. A child has 25% of chances of developing allergies if one of the parents is allergic; when both of the parents are allergic chances rise upto 50% to 75%.
- 2) Exposure to sensitizing factors:-
  - a) By contact:- (By contactants like wool, soap, oils, cosmetics, rubber, feathers, etc.)
  - b) By inhalation(Dust,Pollen)

The children lacks elastic recoil, and as a result of this, airways are less well supported.

Airways walls of young lungs are thicker, this combined with reduced elastic recoil favours greater airway narrowing for any degree of smooth muscle contraction.

## 3. HOST DEFENSE MECHANISM

Distinct innate and adaptive defence systems mediate various aspects of host in the lung. During the postnasal period the number and types of immune cells present in the lung expand markedly.

Alveolar macrophages, dendritic cell, lymphocytes of various subtypes, polymorphonuclear cells, eosinophils, and mast cells each have distinct role in host defense. Immune cells mediate acute and chronic inflammatory responses accompanying lung injury or infection. Both the respiratory epithelium and inflammatory cells are capable of releasing and responding to a variety of polypeptides that

initiate the expression of genes that are involved in:-

1. Cytoprotection, e.g.Antioxidants.
2. Adhesion, influencing the attraction, binding of inflammatory cells to epithelial and endothelial cells of the lungs.
3. Cell proliferation, apoptosis and differentiation that occur following injury or infection.

The Adoptive immune system includes; both antibody and cell mediated response to antigenic stimuli. Adoptive immunity depends upon the presentation of antigen by macrophages, dendritic cells or the respiratory epithelium to mononuclear cells, triggering the expansion the expansion of immune lymphocytes and initiating antibody production and cytotoxic activity needed to remove infected cell from the lung. The lung contains active lymphocytes (natural killer cells, helper and cytotoxic T cells) that are present within the parenchyma and alveolus organized populations of mononuclear cells are also found in the lymphatic system along the conducting airways termed the bronchiolar – associated lymphocytes(BALT). Cytotoxins and chemokines -(IL-1, IL-8, T.N.F-alpha) are produced by respiratory epithelial and other pulmonary cells, providing proliferative and differentiate signal to inflammatory cells that, in turn amplify these signals by releasing cytokines or other inflammatory mediators within the lungs.

Each the average adult inhales more than 9000 lt of air. The respiratory tract therefore provides a major source of contact between humans and their environment and must contain an elaborate defense mechanism to protect itself against such damaging agents such as bacteria, and other particles or noxious gases that may pollute the atmosphere.

The respiratory tract is better equipped than the peripheral lung parenchyma to deal with inhaled particles. Because of the turbulence and inertial impaction, particles larger than 10um in diameter are largely filtered out in nose, those between 2-10um settle out on the mucocilliary blanket. Smaller particles in the range of 0.5-3um penetrate to the alveolar ducts and alveoli. Smaller particles show no appreciable deposition and is exhaled. Humidification of incoming air causes hygroscopic particles to increase in size and thus to land at a higher point in the tracheo-bronchial tree. Once deposited particles are subjected

to several excretory transport mechanisms. The mucous lining layer is propelled by ciliary activity at the rate of 10-20mm/ min. So 90% of the material deposited on the tracheal mucosa is physically cleared in an hour.

The anatomic structure of airway and the dichotomous branching of the lower airways make an important contribution to the defense of the lungs against infection. The initial barrier is the nose, which acts as an effective filter. The nasal hair (fimbriae) filters very large particles. The tonsils and adenoids are strategically located to deal with larger soluble particles, by specific local defenses. If the tonsils and adenoids are largely enlarged, nasal resistance is increased, resulting in mouth breathing, which bypasses the nasal defenses. Oedema of the turbinates from viral infection or allergies may produce similar effects. Several airway reflexes that argue the nonspecific host defense system are sneezing, coughing and bronchospasm

#### 4 HOMOEOPATHIC APPROACH

allergic disorders are of chronic diseases with acute exacerbation of symptoms at times. The other school considers allergy as the disease diagnosed on the part of the body affected, but in homoeopathic science allergy is a complete symptom, which has its definite onset, location, sensations, modalities, and concomitants are to help individualization of the diseased person. From the homoeopathic point of view the complete diagnosis of the case includes complete symptomatology of allergic manifestations and the characteristic features of the person suffering from allergy.

“Susceptibility” can be defined as the reaction of the organism to external and internal influences. It is an inheritant capacity in all living things to react to stimuli in the environment and represents a fundamental quality that distinguishes living from the non living. Susceptibility varies in degree in different patients and at different times in the same patient.

Chronic prescribing includes a constitutional approach to a case based on reactive pattern of an individual.

#### 5 MATERIALS AND METHODOLOGY

With an object to show the role of different homoeopathic remedies in finding out the simillimum for different types of allergic respiratory disorders, 30 children with allergic respiratory manifestations are taken randomly in this study from O.P.D’s, I.P.D, and various camps arranged by the college. Each was taken thoroughly and follow-ups was done to a minimum of 6 months from the commencement of the treatment.

#### 6 OBSERVATIONS & DISCUSSIONS

##### 1) Distribution of cases on allergic respiratory disorders:-

	cases	
Allergic Rhinitis	11	36.66
Extrinsic Asthma	10	33.33
Allergic Bronchitis	4	13.33
Allergic rhinitis with asthma	5	16.66
<b>Total cases</b>	<b>30</b>	<b>100</b>

##### 2) Sex incidence:-

Sr.No	Sex	No.of Patients	%
1)	Male	14	46.6%
2)	Female	16	53.3%
	Total	30	

##### 3) Age Incidence

Sr. No	Age	No. of Patients	%
1)	Less than 1 yr	4	13.3%
2)	1-5 yr	17	56.6%
3)	6-10 yr	6	20%
4)	11-15 yr	3	10%
	Total cases	30	

##### 4) Analysis of cured and not cured cases

Sr.No	Cured/ Not cured	No. of Patients	%
1)	Cured	26	86.6 %
2)	Not cured	04	13.3 %
	Total	30	

Out of 30 children, 6 cases was dependent on steroids and 9 cases on bronchodilators and other antihistamine preparations totally became non-dependent after homoeopathic treatment

#### 7 CONCLUSION

There are following findings in the study of Allergic Respiratory Disorders in children:-

There is maximum percentage of cured patients with homoeopathic remedies i.e, 26 (86.6%), and not cured were only 4 (13.3 %).

1) There is no significant difference in prevalence of allergic respiratory tract disorders in male (46.6%) and female (53.3%) children included in this study.

2) Prevalence of allergic respiratory tract disorders in children is found more frequently in the age group of 1-5 years (56.6%).

3) Among the respiratory allergic diseases, allergic rhinitis (36.6%) ranked high and second place was extrinsic bronchial asthma (33.33%).

4) Acute medicines like arsenic alb.(36%), Ars.iod.(16%), Ant.

Diagnosis	No.of	% Percentage
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Tart (12%) were found to be beneficial during an acute exacerbation of the complaint.

5) Constitutional treatment seems to be efficacious than acute remedies, in reducing the frequency and to bring down the susceptibility to normal level.

6) Sycotic dominance was noted in a majority of cases (50%).

7) IM potency seemed to be effective in majority of cases (35.7%).

8) A detailed case taking is essential for successful management of cases.

9) Out of 30 cases treated with constitutional remedy following remedies proved more efficacious.

Name of constitutional remedy	Number of cases treated
Phosphorus	5
Calc.carb	5
Pulsatilla	5
Sulphur	3
Nat.Mur	3
Silicea	3
Others remedies	6
Total	30

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