## THE EFFICACY OF ARSENICUM IODATUM IN CENTESIMAL AND FIFTY MILLESIMAL SCALE POTENCIES IN ALLERGIC RHINITIS AMONG CHILDREN-A COMPARATIVE STUDY

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF

### DOCTOR OF MEDICINE IN HOMOEOPATHY: M.D. (Hom.)

IN

## PAEDIATRICS

BY

## Dr. AISWARYA SEKHAR

UNDER THE GUIDANCE OF

Dr. P. R. SISIR M.D. (Hom.) PROFESSOR & HEAD, DEPARTMENT OF PAEDIATRICS



## SARADA KRISHNA HOMOEOPATHIC MEDICAL COLLEGE, KULASEKHARAM, TAMIL NADU



## SUBMITTED TO THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY, CHENNAI, TAMIL NADU

## ENDORSEMENT BY THE HEAD OF THE DEPARTMENT AND THE INSTITUTION

This is to certify that the Dissertation entitled "THE EFFICACY OF ARSENICUM IODATUM IN CENTESIMAL AND FIFTY MILLESIMAL SCALE POTENCIES IN ALLERGIC RHINITIS AMONG CHILDREN-A COMPARATIVE STUDY" is a bonafide work carried out by Dr. AISWARYA SEKHAR, a student of M.D. (Hom.) in DEPARTMENT OF PAEDIATRICS in SARADA KRISHNA HOMOEOPATHIC MEDICAL COLLEGE under the supervision and guidance of Prof. Dr. P. R. SISIR, M.D. (Hom.), PROFESSOR & HEAD, DEPT. OF PAEDIATRICS in partial fulfilment of the regulations for the award of Degree of DOCTOR OF MEDICINE (HOMOEOPATHY) in PAEDIATRICS. This work confirms the standards prescribed by THE TAMILNADU Dr. M.G.R. MEDICAL UNIVERSITY, CHENNAI.

This has not been submitted in full or part for the award of any degree or diploma from any university.

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### **CERTIFICATE BY THE GUIDE**

This is to certify that the Dissertation entitled "THE EFFICACY OF ARSENICUM IODATUM IN CENTESIMAL AND FIFTY MILLESIMAL SCALE POTENCIES RHINITIS AMONG IN **ALLERGIC CHILDREN-A** COMPARATIVE STUDY" is a bonafide work of Dr. AISWARYA SEKHAR. All her work has been carried out under my direct supervision and guidance. Her approach to the subject has been sincere, scientific and analytic. This work is recommended for the award of the degree of DOCTOR OF MEDICINE (HOMOEOPATHY) in PAEDIATRICS of THE TAMILNADU Dr. M.G.R. MEDICAL UNIVERSITY, CHENNAI.

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## DECLARATION

I, Dr. AISWARYA SEKHAR do hereby declare that this Dissertation entitled "THE EFFICACY OF ARSENICUM IODATUM IN CENTESIMAL AND FIFTY MILLESIMAL SCALE POTENCIES IN ALLERGIC RHINITIS AMONG CHILDREN-A COMPARATIVE STUDY" is a bonafide work carried out by me under the direct supervision and guidance of Dr. P.R. SISIR, M.D.(Hom.), Professor & Head, DEPARTMENT OF PAEDIATRICS, in partial fulfilment of the regulations for the award of Degree of DOCTOR OF MEDICINE (HOMOEOPATHY) in PAEDIATRICS of THE TAMILNADU Dr. M.G.R MEDICAL UNIVERSITY, CHENNAI. This has not been submitted in full or part for the award of any degree or diploma from any university.

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Ref: Your Application for Ethical clearance- Proposal No. 295

Dear Dr,

The above mentioned research proposal of "The Efficacy Of Arsenicum Iodatum In Centesimal And Fifty Millesimal Scale Potencies In Allergic Rhinitis Among Children- A Comparative Study" was discussed in the Ethics Committee meeting held on 21-01-2021 at the College.

All the members of Ethical Committee have unanimously approved your Title of Synopsis. This work will be done under the guidance and supervision of Dr. P.R.Sisir



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### ABSTRACT

#### **BACKGROUND OF THE STUDY:**

Allergic rhinitis is clinically defined by the presence of rhinorrhea, nasal obstruction, nasal itching and sneezing which are reversible spontaneously or with treatment. Homoeopathic medicine is having good scope in the treatment of allergic rhinitis in children. In every case, homoeopathic treatment is based on symptom similarities found. Finding the exact potency is always a challenging task for every physician. Master Hahnemann, after his long study and evaluation, found a new altered but perfect method of dynamization - the LM potency. Allergic Rhinitis is one of the most common conditions of the upper respiratory system and there are only a few studies done on the role of several potencies of Arsenicum iodatum. This study is a comparative clinical study on the effectiveness of LM and CM potencies of Arsenicum iodatum in treating allergic rhinitis among children.

#### **MATERIALS AND METHODS:**

A clinical study of Arsenicum iodatum in allergic rhinitis with centesimal and millesimal scale potencies. A sample of 60 cases having allergic rhinitis was taken from OPDs of Sarada Krishna Homoeopathic Medical College, Kulasekharam. Cases were then divided into two groups by random purposive sampling. Arsenicum iodatum in centesimal scale potency (30<sup>th</sup> potency) was administered to group 1 consisting of 30 cases and Arsenicum iodatum in 50 millesimal scale potency (0/3 potency) was given to group 2 consisting of 30 cases. The assessment was done through clinical observation and improvement in severity scores of cases. Statistical analysis was done

#### **RESULT:**

In Group 1, after homoeopathic intervention Arsenicum iodatum 30 C, 7 cases (23%) showed marked improvement, 15 cases (50%) with moderate improvement and 8 cases (27%) with mild improvement. In Group 2, after homoeopathic intervention Arsenicum iodatum 0/3, 7 cases (23%) showed marked improvement, 19 cases (64%) with moderate improvement and 4 cases (13%) with mild improvement. Altogether there were 14 cases (23.3%) with marked improvement, 34 cases (56.7%) with moderate

improvement and 12 cases (20%) with mild improvement. Furthermore, Paired t-test was done to assess the effectiveness of Arsenicum Iodatum 30 C and 0/3 potencies in Allergic rhinitis among children. The two-tailed P-value was < 0.0001. t Stat values 11.99523 (30 C potency) and 15.87388 (0/3 potency) were greater than the tabled values at 5% and 1% levels of significance for 29 df. There was a significant improvement in both Groups (1 & 2) in which Arsenicum Iodatum was given in 30 C potency and 0/3 potency respectively. A chi-square test of independence was performed to examine whether the centesimal or 50 millesimal potency of Arsenicum Iodatum is more effective in managing Allergic rhinitis among children. The chi-square statistic was 1.8039. The p-value was .405773. The result was not significant at p < .05.

**CONCLUSION:** After analysis, this study concluded that both CM and LM scale potencies of Arsenicum Iodatum are equally effective in the management of Allergic Rhinitis among children.

**KEYWORDS:** Allergic rhinitis, Arsenicum Iodatum, Centesimal scale, 50 Millesimal scale

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## LIST OF ABBREVIATIONS USED

SL NO	ABBREVIATIONS	EXPANSION	
1.	AR	Allergic Rhinitis	
2.	OPD	Out-Patient Department	
3.	%	percentage	
4.	IgE	Immunoglobulin E	
5.	Hrs	Hours	
6.	Min	Minutes	
7.	i.e.,	That is	
8.	eg.	example	
9.	LM	50 millesimal	
10.	No	Number	

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#### **1.0 INTRODUCTION**

Allergic rhinitis seems to be a prevalent ailment that affects people all over the world. It's a set of symptoms that appear in the eyes and nose when someone breathes something sensitive, like dust, animal dander, or pollen. It impacts 30-40% of the global population. Allergic rhinitis seems to be the most frequent type of allergy encountered in children and young adults. Patients with allergies have a different level of responsiveness to common allergens in the environment. Sneezing, itching, nasal obstruction, and mucoid rhinorrhoea are all symptoms of anaphylaxis in the nasal mucosa. Various allergies affect everyone because they have become a component of living due to a variety of circumstances. To some extent, allergens in the environment in which people live affect everyone. When there has been a tendency, all of these allergens will exacerbate the illness.

After observing hypersensitivity to ordinarily harmless elements such as dust, pollen, or particular meals in some patients, Clemens von Pirquet coined the term "allergy" in 1905. Robin Coombs and Philip Gell proposed a new categorization for hypersensitivity reactions in 1963, describing four categories of hypersensitivity reactions. The term "allergy" was now limited to Type I hypersensitivity with this new classification. After Kimishige Ishizake discovered the antibodies immunoglobulin E (IgE) in the 1960s, the process of allergy became well known.

Homoeopathy is more effective than other treatments. Homoeopathic treatment reduces the severity and frequency of symptoms, consequently improving the quality of life. Arsenicum iodatum is a homoeopathic medicine with a strong respiratory effect. The cure chosen is focused on symptoms similarities that help to improve the immune system's defences against foreign bodies that could otherwise cause disease in youngsters. My research aims to investigate the effectiveness of Arsenicum iodatum, homoeopathic medicine that helps to treat Allergic Rhinitis symptoms and reduce recurrence. This research was carried out on Sarada Krishna Homoeopathic Medical College OPD patients.

The choice of the specific potency is a contentious issue in homoeopathy, and the debate over the potency to utilize has raged on since Hahnemann's day. Between both the two potency scales, there is a clear subjective as well as quantitative difference. On the constitutions, reactions, and circumstances for which they are most suited, their differences and similarities become more obvious. As a result, the potency issue has become a source of debate and a difficulty for prospective pupils. As a result, it was critical to conduct a comparative study to give statistical information on the effectiveness of Arsenicum iodatum on 50 millesimal and centesimal scale potencies in managing allergic rhinitis among children.

#### **1.1NEED FOR THE STUDY**

One of the most prevalent disorders treated in outpatient centres is allergic rhinitis. Due to their lack of antibodies to illnesses, children are more easily afflicted and susceptible to a wide range of ailments than any age group. Allergic rhinitis is increasingly common in our area, although just a few research have been conducted. I've witnessed how homoeopathic treatment can provide long-term alleviation without requiring remissions. Arsenicum iodatum is a homoeopathic drug that has a strong effect on mucous membranes and has been proved to help with allergic rhinitis. Therefore, the efficacy of Arsenicum iodatum in the treatment of allergic rhinitis must be confirmed. As a result, a comprehensive and scientific investigation is required.

#### **1.2 SCOPE OF THE STUDY**

The effectiveness of Arsenicum Iodatum in allergic rhinitis among children can be assessed.

## 2.0 AIM AND OBJECTIVES

## AIM:

• To find out the effectiveness of fifty millesimal and centesimal scale potencies in Allergic Rhinitis among children.

## **OBJECTIVES:**

- Role of Arsenicum Iodatum in Allergic Rhinitis.
- To compare the effectiveness of fifty millesimal scale potency (0/3) and centesimal scale potency (30).

### **3.0 REVIEW OF LITERATURE**

#### **3.1 DEFINITION**

Sneezing, rhinorrhoea, nasal blockage, conjunctivitis, nasal and pharyngeal itching, and lacrimation are all symptoms of allergic rhinitis that occur in a direct correlation to allergen exposure <sup>[1].</sup>

#### **3.2 EPIDEMIOLOGY**

According to WHO estimates, 400 million individuals in India struggle with Allergic Rhinitis, accounting for 20 to 26 per cent of the country's population<sup>[2]</sup>. The prevalence of allergic rhinitis has increased dramatically during the last four decades <sup>[3]</sup>, with worldwide prevalence rates ranging from 2% to 20% <sup>[4]</sup>. Hay fever usually appears after a child has been exposed to allergens for at least two years<sup>[5]</sup>. Allergic rhinitis usually starts in schoolaged children, usually before they reach the age of five. The disorder is more prevalent in boys just before age of ten, and in girls between the ages of ten and eighteen <sup>[6]</sup>. According to the International Study for Asthma and Allergies in Children in India (ISAAC), the age group 13-14 years old has 18.6% and the age group 6-7 years old has 12.5 per cent<sup>[7]</sup>. According to studies conducted on school-aged children, the incidence rate in the age of 6-15 years is 22.5 per cent. Allergic rhinitis affects 75% of asthmatic children. 75 per cent of children have a hereditary family history of Rhinitis on both sides of the family, which can lead to Allergic Rhinitis or Asthma<sup>[6]</sup>. According to a study, children in urban regions are more liable to incur allergic rhinitis than children in rural settings<sup>[8]</sup>. Symptoms can develop as early as infancy, and also the diagnosis is usually made by the age of six. Atopy in the family is a risk factor, as is a history of atopy.

#### **3.3 AETIOLOGY**

Atopic people are more likely to develop allergic rhinitis i.e., in people who have a family history of a similar or analogous symptom complex and have a personal history of eczematous dermatitis or urticaria, as well as asthma. Symptoms usually emerge well before the fourth decade of life and then gradually fade as people age. However, depending on the season, the intensity of symptoms may fluctuate from year to year <sup>[1]</sup>.

- House dust mites, which can be discovered in mattresses, carpets, soft furniture, pillows, and beds, are the most prevalent cause of allergic rhinitis.
- o Pollen
- Mold and fungi are the sources of spores.
- $\circ$  Fur, saliva, and urine of animals such as cats and dogs <sup>[9]</sup>.
- Particles from insects found outside.
- Cockroach<sup>[8]</sup>.

#### **3.4 CLASSIFICATION**

Allergic rhinitis is currently classified as

#### SEASONAL ALLERGIC RHINITIS

Hay fever is the most frequent of all allergy disorders and is commonly referred to as "hay fever." When pollens from a certain plant, whereby the patient is allergic, were present in the air, symptoms emerge during or around a specific season. Seasonal allergic rhinitis is elicited by a small number of weeds that rely on air rather than insects for pollination, along with grasses and some trees, which generate sufficient pollen for the widespread distribution of air currents. The amount of pollen in the air might affect whether or not hay fever symptoms emerge. The majority of allergen is blown to the ground during cool, moist, rainy days. Pollen levels in the air are much more likely to be higher on warm, dry, windy days <sup>[2]</sup>.

#### PERENNIAL ALLERGIC RHINITIS

Symptoms might appear at any time of the year. Antigens commonly linked to indoor allergens, animal dander, home dust, mites, and molds <sup>[10]</sup> may cause a particular reaction. Physical and chemical irritants such as strong scents, chilly air, and a dry environment can

elicit similar symptoms<sup>[11]</sup>. Because of its enormous size, 10-100 um, their retention within the nose, allergens might produce rhinitis instead of lower respiratory symptoms.

#### **3.5 PATHOPHYSIOLOGY**

The folds and turbinates of the nose provide a wide mucosal surface area for adjusting the temperature and composition of breathed air, as well as filtering out particulate material >10m in dimension by entrapment in a mucus blanket; ciliary movement drives the entrapped particles towards the pharynx. Pollen is entrapped and the outer coat is digested by mucosal enzymes including lysozymes, releasing protein allergens having molecular weights of 10,000 to 40,000.

Allergy is a condition in which the tissues react abnormally to particular things, most commonly a protein termed allergen. A particular antibody is formed as a result of this reaction. When IgE (antibody) comes into touch with a certain antigen, it causes an antigenantibody interaction in the nose. This is referred to as a Type 1 Pathological Reaction. IgE is produced by plasma cells, and T-suppressor or T-helper cells regulate the process. IgE has a good attachment to mast cells and basophils, and it adheres to their surfaces. Mast cells are disrupted, and enzymatic activity is disrupted, resulting in the production of a histamine-like chemical. H1 receptors in the nostril and respiratory mucosa are stimulated by histamine release. IgE-forming plasma cells are mostly present on the mucus layer of respiratory mucosa, the pharynx (containing adenoids and tonsils), and the lining mucosa of the adenoids and tonsils. Smooth muscle, vascular endothelium, and mucus-secreting glands are all affected by histamine. The number of IgE molecules in non-allergic subjects ranges from 5300 to 2700, while allergic subjects range from 15,000 to 41,000<sup>[12]</sup>. The seromucous glands of the nasopharynx are activated, resulting in the downpouring of thin mucus<sup>[13].</sup>

This reaction causes mast cell degranulation, which results in the release of numerous chemical mediators which are responsible for allergic illness symptoms. Vasodilation, mucosal oedema, eosinophil infiltration, increased secretion from nasal glands, and smooth muscle contraction may occur depending on the cell type involved. There has also been talking of a "priming effect." i.e., mucosa that has been previously sensitized to that of an

allergen may react to lower dosages of the same allergen in the future. It's also primed for nonspecific antigens that the patient hasn't been exposed to.

Clinically allergic responses occur in 2 phases:

- Acute/early phase-Sneezing, rhinorrhea, nasal blockage, and/or bronchospasm characterise the acute early phase, which begins within 5-30 minutes of exposure to a specific allergen and includes sneezing, rhinorrhea, nasal blockage, and/or bronchospasm. It's caused by the release of histamine and other vasoactive amines.
- **The late/delayed phase**-It occurs 2-8 hours after an allergen has been exposed without further exposure. Inflammatory cells such as eosinophils, neutrophils, basophils, monocytes, and CD4+ T lymphocytes infiltrate the antigen-deposition site, generating oedema, congestion, and thick secretion <sup>[14]</sup>.

### **3.6 CLINICAL MANIFESTATIONS**

- Hay fever symptoms are comparable to viral rhinitis symptoms, but they are more chronic and show seasonal change.<sup>[9]</sup>.
- Typical symptoms of Allergic rhinitis include paroxysmal sneezing, watery nasal discharge (rhinorrhea), nasal congestion, itching in the nose, throat, and soft palate<sup>[3]</sup>
- Unilateral or bilateral blockage of the nose is common
- Unilateral nasal discharge may be due to a foreign body retained in the nose
- Loss of smell (anosmia), conjunctival itching <sup>[15]</sup>.
- Blockage of sinuses and nasolacrimal ducts causing headache, watering of eyes and recurrent epitasis can also follow.
- The postnasal drip of the nasal mucosa can result in frequent attempts to clear the throat <sup>[6]</sup>.
- Allergic salute-An upward stroking of the nose with the palm of one's hand or the index finger<sup>[3]</sup>.
- Nasal turbinates are swollen<sup>[5]</sup>.

The following symptoms may appear later:

• nasal congestion (stuffy nose)

- Coughing
- Clogged ears and decreased sense of smell
- $\circ$  Sore throat
- o Dark circles under the eyes
- Puffiness under the eyes
- Fatigue, irritability, and Headache<sup>[16]</sup>.

#### **3.7 PHYSICAL EXAMINATION**

The typical appearance of an allergic nose is moist, swollen turbinates with a pale/bluegrey colour and a glistening, serous, or watery discharge on physical examinationMucosal oedema can cause a swelling at the base of the nostrils, below the turbinates, that is more or less noticeable. Other common findings include:

- $\circ$  Allergic shiners <sup>[14]</sup>.
- Allergic salute
- Allergic or adenoid facies
- The allergic crease
- Dennie-Morgan lines<sup>[17]</sup>.
- A geographic tongue
- Abnormalities of the oral cavity underdevelopment of the mandible, overriding maxillary incisors, posterior pharyngeal wall hypertrophied lymphoid follicles, high arched palate, and postnasal drip<sup>[9]</sup>.

#### **3.8 DIAGNOSIS AND INVESTIGATIONS**

In most cases, allergic rhinitis is easily diagnosed by history and physical examination. There is a close relationship between allergen exposure and allergic reactions e.g., dust and animal dander may produce immediate sneezing or wheezing.

**TOTAL AND DIFFERENTIAL COUNT**: The nasal secretions of allergic patients are rich in eosinophils and peripheral eosinophilia is a common feature.

**NASAL SMEARS**: In allergic rhinitis, a nasal smear reveals a considerable number of eosinophils. During clinically active disease or after a nasal challenge test, the nasal smear

can be taken. Nasal eosinophilia is also seen in certain non-allergic rhinitis e.g., NARES (non-allergic rhinitis with eosinophilia syndrome).

**TOTAL SERUM IgE**: A measurement of total serum IgE by radio immunosorbent methods (e.g., paper radio immune sorbent test [PRIST] or enzyme methods (enzymelinked immune sorbent assay [ELISA] can help to differentiate allergic from non-allergic rhinitis. When measured by PRIST, approximately 60% of adults with asthma or hay fever or both have IgE values 2 S.D. above healthy adult control values. Parasitic and other causes of IgE elevations must be excluded.

**DETERMINATION OF OFFENDING ALLERGEN**: It helps to identify specific allergens.

- Epidermal test [scratch test, prick test]: The direct introduction of an antigen into the skin of the patient determines IgE antibodies to a specific antigen. Test sites are 2 cm apart and should be marked and a drop of allergic solution is inserted into the skin. After 15 to 30 minutes, test sites should be observed for erythematic and wheal formation, and the diameter in mm should be noted. A large wheel is more than 10 mm in diameter.
- Intradermal test: A 1:500 or 1:1000 dilution of allergen is introduced on the forearm's palmar surface and the lateral aspect of the upper arm. The millimetre size of the wheel is assessed in 15-30 minutes <sup>[17]</sup>.
- 3. **Radio Allergo Sorbent Assay Test (RAST)**: It's an in vitro test for determining the presence of particular IgE antibodies to various allergens that have been used to diagnose allergic disorders.
- 4. **Nasal provocation test**: It consists of observing the patient for signs and symptoms of allergic rhinitis after applying a specific allergen to the nasal mucosa using a toothpick and asking the patient to sniff into each nostril.

**IMAGING STUDIES:** Imaging investigations are not usually required in children with allergic rhinitis unless sinusitis is suspected. A restricted computed tomography scan of the sinuses is recommended in such circumstances. Rhinoscopy can be used to provide a direct

examination of the upper airway to identify an obstructive infectious aetiology of rhinitis and to assess nasal polyposis.<sup>[18].</sup>

**SPIROMETRY:** Almost 70% of children having asthmatic complaints present with concomitant allergic rhinitis. Spirometry may be useful in such circumstances.

#### **3.9 DIFFERENTIAL DIAGNOSIS**

**Vasomotor rhinitis:** The phrase is used to describe a form of rhinitis that has a specific allergic aetiology. The disorder is caused by vasomotor abnormalities caused by neurological impairment, psychogenic instability, psychological situations, hormonal changes, climatic factors, antihypertensives, and local decongestants. Nasal blockage, nasal discharge, sneezing, headaches, face discomfort, and weariness are the most common symptoms. Inside the nose, there is mucosal hypertrophy, turgescent dusky red mucosa, and watery discharge. The posterior ends of the inferior turbinates are hypertrophied on posterior rhinoscopy.

**Rhinitis medicamentosa:** An overuse of vasoconstricting nose drops causes this condition. <sup>[19]</sup>.

**Nasal polyps:** A nasal polyp is an engorged pedunculated edematous mucosa. It frequently arises from the surface of the middle turbinate or the Ostia of the ethmoid or maxillary sinuses as a consequence of perennial allergic rhinitis. Both allergic and infectious factors have been postulated as the mechanisms producing polyps. Those associated with allergy appear as grey or white glistening gelatinous masses, those associated with chronic infection appear more erythematous, granular, and firm.

**Hormonal rhinitis:** Nasal mucosa congestion is a common physiologic alteration during pregnancy. This is likely a major contributor to the development of "rhinitis of pregnancy" in some women, a syndrome characterised by nasal congestion and vasomotor instability that occurs only during pregnancy.

**Drug-induced rhinitis:** Patients taking hypertension medicines such as reserpine, alpha methyldopa propranolol, and some psycho sedative drugs may experience severe nasal

congestion, which is a typical adverse effect. Contraceptives have been blamed for causing chronic rhinitis. Cocaine sniffing can produce rhinorrhoea.

**Foreign body:** Patients with a foreign object in their nose may have chronic allergic rhinitis, according to some experts. A unilateral nasal blockage with a nasty, purulent nasal discharge is the most common symptom. The inspection is best performed after the fluids have been cleared, allowing the foreign body to be seen.<sup>[14]</sup>.

**Cerebral spinal fluid rhinorrhoea:** A head injury can cause CSF rhinorrhoea. Cerebrospinal fluid is watery and clear in appearance like that seen in allergic rhinitis the majority of cases, CSF rhinorrhoea is unilateral.

#### **3.10 COMPLICATIONS**

The nasal allergy might cause:

- o Recurrent attack of sinusitis
- Serous otitis media with hearing loss
- o ill-effects of prolonged mouth breathing such as orthodontic problems
- o Nasal polyp
- o Bronchial asthma

#### **3.11 TREATMENT**

- The purpose of treatment is to prevent or relieve symptoms in a safe and effective manner.
- Specific efforts to decrease interior allergen exposure may help to lessen the risk of sensitized and allergy symptoms.
- Sealing the patient's mattress, pillow, and covers in allergen-proof encasings reduces the exposure to mite allergen. Blankets and bed linens must be washed in hot water (>130°F) once a week
- The removal of the pet is the only efficient way to avoid animal allergens in the home.
- Avoidance of outdoor molds and pollen.

- As a result of the air conditioning, windows and doors can be closed, limiting pollen exposure.<sup>[6]</sup>.
- Patients are advised simple avoidance measures e.g. staying indoors when the pollens and fungal spores are high in midday and afternoons and closing the bedroom windows during specific seasons and at night. Air conditioners can be advised to some people including electronic filters.
- When high allergen exposure is unavoidable, a mask may be worn over the nose and mouth to prevent inhalation of allergens <sup>[6]</sup>.

#### SURGICAL OPTION

- Nasal polypectomy
- Turbinectomies <sup>[18]</sup>

#### **3.12 HOMOEOPATHIC REVIEW**

#### Aphorism 117-Organon of Medicine

IDIOSYNCRASY: This word refers to people with unusual constitutions who, despite being otherwise healthy, are somewhat morbidly influenced by certain things that appear to have no effect and generate no alteration in many other people. This lack of susceptibility, however, is not real. Two criteria must be present in this, and also in the formation of all the other morbific effects. The active principle of the drug is present in the first place, and the vital force of the organism is capable of being impacted by the active principle of the drug in the second place. As a result, the unusual disease that arises from so-called peculiarities cannot be assigned just to this particular type of physiological constitution, but must also be considered related to other factors.

#### **ARSENICUM IODATUM**

- **Source**: Mineral kingdom <sup>[20]</sup>.
- **Synonyms**: Iodide of Arsenic, Arsenious iodide <sup>[20]</sup>.
- $\circ$  Formula: Asl<sub>3</sub><sup>[20]</sup>
- **Prover**: H. Nankinwell, Dr. E.W. Beebe<sup>[20]</sup>.
- **Preparation for use**: Trituration with sugar of milk <sup>[20]</sup>

#### **REMEDY DESCRIPTION**

Arsenicum iodatum is effective for a wide range of chronic inflammatory disorders affecting the lungs, bronchial tubes, and mucosal of the human body. It works wonders for colds in the winter. When mucous membrane discharges are persistently acrid, thick, gluey, and yellow such as honey in chronic conditions, this remedy should be considered. Discharges cause the part about which they flow to burn <sup>[21]</sup>.

It's the best choice for irritative, corrosive discharges that don't go away. The emission disturbs the membranes from which it originates and through which it travels. The secretion may be putrid-smelling or watery, as well as the mucus is invariably red, swollen, itchy, and burns, with tissue swelling in the nose <sup>[22]</sup>. Itchy, excoriating, thin, watery, discharge from the anterior and posterior nares <sup>[23]</sup>, excoriating the upper lip and making the nasal canal feel packed all of the time. The emission of thick yellowish mucoid debris is caused by repeated outbreaks of this type of catarrh and coryza. The most common symptom is sneezing <sup>[24]</sup>.

The discharge is profuse, greenish, yellow, pus-like, and is persistently excoriating. It irritates every portion over which it flows and hence we use it in ordinary coryza as well as in chronic nasal catarrh. It may be used in hay fever with the characteristic scalding discharge <sup>[22]</sup>.

#### AGGRAVATIONS

 Sneezing <sup>[13]</sup>, Morning. Afternoon <sup>[25]</sup>, Night <sup>[21]</sup>, Foggy weather, excretion, inroom, Cold dry weather, winds, Winter, cold bath and drinks, Apples Tobacco smoke.

#### AMELIORATIONS

• Warmth, Wrapping-up, Open-air, summer<sup>[12]</sup>.

#### MIASMATIC CLASSIFICATION OF ALLERGIC DISEASES:

A psoric recurrent cold is a hypersensitive reaction to several things such as dust, certain foods, or even stress. It is noticeable by running nose, malaise and sneezing, with or without

temperature It recovers without difficulty The cough would be dry and spasmodic, with little exudates, and it will improve with rest and heat applications. The sycotic type of repeated cold can prime to chest congestions and might lead to asthma. Snuffles in children, as well as a dry rattling cough, can occur after a brief exposure to the cold. The process of recovery is slow.

Recurrent infections of the tonsil and lymph nodes are caused by the tubercular type of recurrent cold. There can be thick catarrhal discharge, deep cough with purulent greenish-yellow expectoration, postnasal dripping, and haemorrhages. There will be related prostration. It can produce bleeding ulcers of the nasal septum, glands, and other tissues in the syphilitic stage. It will be difficult to recover.

#### **CHOOSING THE POTENCY:**

The sequences of potencies have compared to the gamut in music, "A skillful artist may indeed construct a harmony with the various vibrations of the same chord; but what a more beautiful and perfect harmony might he construct by a proper combination of all the sounds that can be elicited from his instrument." (Guernsey) In general, any curable condition can be healed by any potency whenever the specified medication is delivered; but, the cure can be greatly hastened by selecting the optimum potency or dose for the individual instance. <sup>[10]</sup>. According to Dr Elizabeth Wright -The most similar is the remedy. However, does not become the similimum until the potency is adjusted to a place of an individual during his or her illness at the time of prescribing <sup>[2]</sup>.

The question of potency scale selection constantly reserved the Homeopaths of all times wondering and with diverse views. The homoeopath must be open to using the whole choice of potencies, from the lowest to the highest, liable upon the request of the case. Each scenario would dictate the potency to be used. Stuart Close states "Different potencies act differently in different cases & individuals at different times under different conditions. All the potencies may be needed. No one potency, high or low, will meet the requirement of all cases at all times."<sup>[26]</sup>

The potency selection is not a humble one. It requires the consideration of various components that make up the totality. While there are no set rules for determining potency,

several criteria have been established. There is an alteration in the action of the several potencies of homoeopathic remedies. It's just as vital to pick the right potency as it is to pick the right treatment. The remedy will partially respond if the potency is not matched properly <sup>[30].</sup> Any potency can be used to treat any illness, however, when the correct potency is used, the cure can be hastened and permanent. According to Stuart Close, "Homoeopathic potentization is a mathematics mechanical process for the reduction, according to scale, of crude, inert or poisonous medical substances to a state of physical solubility, physiological assimilability, and therapeutic activity and harmlessness, for use as Homeopathic healing remedies"<sup>[12]</sup>.

The scales under which drug compounds in their basic, original state or state are reduced or quantitatively diminished in a definite ratio are known as the "mathematics" of potentization or drug dynamization. The mechanical element of potentization follows this reduction. Three scales are being used to determine the potencies of psychoactive substances: Scales: Centesimal, Decimal, and Fifty Millesimal.

#### **CENTESIMAL SCALE:**

Dr. Samuel Hahnemann introduced this scale in aphorism 270 of the 5th edition of the Organon of Medicine.<sup>[27]</sup>

- PRINCIPLE: The initial potency should be 1/100th of the original substance, and each subsequent potency should be 1/100th of the previous potency.
- DESIGNATION: This scale is identified by simply adding a numeral after the drug's name., e.g.: Apis Mel 3, Apis Mel 6 .3C, 6C are examples of them. Some of these potency strengths are designated by Roman numerical e.g.: 200 <= cc, 1000 as M or IM, 10,000 as 10M, 50,000 as 50M or LM, 100,000 as CM, 500,000 as DM, 1,000,000 as MM, and 500,000,000 as DMM <sup>[28]</sup>.

#### PREPARATION: Aphorism 270 (5th edition) footnote

One-third of a hundred grains of milk sugar is placed in a glazed porcelain mortar, which has had its bottom dulled by rubbing it with fine, damp sand. One grain of powdered medicine to be triturated is placed on top of this powder (one drop of quicksilver,

petroleum, etc.). For now, the medicines and powder are combined with a porcelain spatula and triturated for six to seven minutes with a dull pestle, whereupon the mass is scooped from the bottom of the mortar and the pestle for three to four minutes to homogenise it. After that, it's triturated in the very same way for 6-7 minutes without introducing anything further, then scraped for 3-4 minutes from the mortar and pestle residue. The second third of the milk sugar is now added, combined with the spatula, and triturated for 6-7 minutes again, followed by scraping for 3-4 minutes and trituration without adding any more sugar for 6-7 minutes. The remaining third of the milk sugar is then added, combined with the spatula, and triturated for 6-7 minutes with the most careful scraping together as before. The powder is then placed in a well-corked vial that is kept out of direct sunlight and labelled with the substance's name and the designation of the initial product marked 1/100. To make this product 1/1000, combine one grain of powdered 1/100 with the third part of 100 grains of powdered milk sugar and proceed as before, but each third must be carefully triturated twice thoroughly each time for 6-7 minutes and scraped together 3-4 minutes before adding the second and final third of milk sugar. The same method is followed after each third. After everything is done, the powder is placed in a well-worked vial and labelled/10000, i.e. (I), with each grain holding 1/1,000,000 of the original ingredient. As a result, trituration of the three degrees takes six times six to seven minutes and scraping takes six times three to four minutes, totalling one hour for each degree. After one hour of such first-degree trituration, each grain will have 1/000, 1/10,000, and 1/1,000,000 of the drug employed, respectively<sup>[27]</sup>.

#### MODE OF ADMINISTRATION: In aphorism 247 (5th edition)<sup>[27]</sup>.

In Acute disease- medicine is repeated every 12, 8, 6, 4, 1 hour, or every 5 minutes
 In Chronic disease- repeated at an interval of 14, 12, 10, 8, or 7 days.

#### DISADVANTAGES

- The rapid gentle cure is not possible at all; it takes a long time.
- Undesirable medicinal aggravation comes even after well-selected medicine is administered.

- After administration of the single dose, one has to delay for a long and watch helplessly the act of the medicine.
- $\circ$  Too frequent repetition is not possible <sup>[30]</sup>.

### MILLESIMAL SCALE:

- Dr. Samuel Hahnemann introduced this scale in an edition of the Organon of Medicine, but Dr. Pierre Schmidt of Genera gave it its name. In the 6th edition of Hahnemann's Organon of Medicine, footnote number 132 of the aphorism 246 described this new method as a "new dynamization method," "new altered but excellent method.". In aphorism 161, he termed it as 'renewed dynamization <sup>[28]</sup>.
- DESIGNATION: It is designated as 0/1, 0/2, 0/3, 0/4...etc. The numerator O denotes the poppy-sized globule. They are at times denoted as LM 1, and LM2<sup>[28]</sup>.
- PREPARATION: It involves both methods of preparation of drugs i.e. Trituration up to 3C and then succussion for further process.
- LM 1: Take 1 grain of 3C and add 500 drops of a mixture containing 1 part of alcohol and 4 parts of distilled water and give 100 succussions. This is LM 1 stock bottle. Take 1 drop of this and wet 500 poppy seeds pellets. These are LM 1 pellets.
- LM 2: Take 1 pellet of LM I and dissolve it in I drop of water. Add 99 drops of alcohol. Succuss 100 times. This is LM 2 stock bottle. Dispense 1 drop from your LM 2 stock bottle onto 500 pellets. These are your LM 2 pellets <sup>[29]</sup>

#### MODE OF ADMINISTRATION: In aphorism 248 (6th edition)

- In very urgent cases well selected medicine is to be administered every hour or oftener (every 5, 10, 20, or 30 minutes)
- In acute cases medicines is to be applied after every 2 or 6 hours.
- In long-lasting diseases, i.e., chronic diseases daily or every second day <sup>[27]</sup>.

#### **ADVANTAGES:**

- The action of well-selected medicine is rapid.
- Medicinal aggravation can easily be avoided by minimizing the quantity of the medicine.

- Medicine can be repeated frequently both in acute and chronic diseases.
- Medicine may be continued even after improvement starts.
- The chronic disease can be cured within the shortest period.
- Within 4 to 5 days after administration of medicine, the physician can ascertain the action of medicine <sup>[28]</sup>.

#### STUDIES RELATED TO ALLERGIC RHINITIS IN HOMOEOPATHY

1. A prospective study of children's allergic rhinitis and homoeopathic treatment

By the age of six, 42 per cent of children have been identified with AR, according to the study. Allergy symptoms can have a significant impact on a child's health, behaviour, and learning abilities. If left untreated, AR can develop into asthma, sinusitis, recurring middle ear infections, sleep disturbances, and a chronic cough. The purpose of this study is to determine the efficacy of homoeopathic treatments in treating AR in children. A total of 100 cases were examined, with 55 per cent recovering, 35 per cent improving, and ten per cent not improving. Homoeopathy has a better chance of treating AR because the treatment is based on a holistic and personalised approach. Homoeopathic medicines not only cure the sickness but also prevent the consequences that come with it.<sup>[16]</sup>.

2. A study was done by Nita. M. Ramchandani, on the homoeopathic treatment of upper respiratory tract infections in children- Evaluation of 30 case series.

A pilot study was conducted on the homoeopathic prevention of recurrent Upper Respiratory Tract Infections (URTIs) in children, using data from detailed case series before and after comparison in 60 patients. The number of URTI attacks during the six months leading up to the start of homoeopathic treatment (Control value) and the six months following the start of treatment (Treatment value) were compared. The findings suggest that homoeopathic medicines based on the principle of individualization can be useful in the treatment of URTIs in children <sup>[16]</sup>.

## 4.0 MATERIALS AND METHODS

#### **STUDY SETTING:**

A sample of 60 cases was taken from patients visiting OPDs of Sarada Krishna Homoeopathic Medical College.

#### **SELECTION OF SAMPLES:**

- Sample size –two groups (centesimal, 50 millesimal) each with 30 cases.
- Sample technique purposive sampling
- Group 1-Arsenicum iodatum was administered in centesimal (30<sup>th</sup>) potencies for thirty patients.
- Group 2-Arsenicum iodatum was administered in 50 millesimal (0/3) potencies for thirty patients.

#### **INCLUSION CRITERIA:**

- Patients of paediatric age group between 5-18 years.
- Children of both sexes.
- Diagnosis criteria were mainly based on the clinical presentation.
- o Improved criteria are based on symptomatic relief.

#### **EXCLUSION CRITERIA:**

- The patient is suffering from other respiratory distress along with complaints.
- Patients are suffering from other systemic illnesses.

#### **STUDY DESIGN**

A clinical study of Arsenicum iodatum in allergic rhinitis with centesimal and millesimal scale potencies. The study was carried out in Sarada Krishna Homoeopathic Medical College Hospital The data will be collected according to a scoring chart. Design is made according to the clinical presentation. the case is analyzed for the totality of symptoms.

#### **INTERVENTION:**

• The intervention of the remedy is based on the disappearance in symptoms and general improvement of the condition of the patients belonging to two study groups who are administered with centesimal and fifty millesimal scale potencies before, during, and after Arsenicum iodatum.

#### **SELECTION OF TOOLS:**

- Pre structured case format for chronic case taking.
- Pre- and post-treatment analysis criteria.
- Scoring chart for assessment of allergic rhinitis in children.

#### METHODOLOGY

- The patients who presented with allergic rhinitis symptoms in OPDs of Sarada Krishna Homoeopathic Medical college were taken after gaining their parent's permission, they were selected for the thorough case examination
- Detailed Notes on cases were taken and recorded in a uniform, prestructured case record format.
- A scoring chart for the assessment of allergic rhinitis in children was prepared.
- Assessment based on symptoms from patients presenting with allergic rhinitis treated with centesimal and fifty millesimal scale potencies of Arsenicum iodatum was made.

#### **BRIEF OF PROCEDURES:**

 Data were obtained from the patient, bystander, physician's observation, and physical examinations recorded in SKHMC standardized case record. The diagnosis was made according to the clinical presentation of symptomatology. Arsenicum iodatum in centesimal (30th potency) was administered to Group 1 consisting of 30 cases and Arsenicum iodatum in 50millesimal (0/3potency) was given to Group 2 consisting of 30 cases. The improvement assessment was done through clinical observation and improvement in severity scores of cases were noted.

#### **DATA COLLECTION**

- Selection of 60 cases each on Arsenicum iodatum both on centesimal and fifty millesimal scale potencies which are diagnosed as allergic rhinitis collected from OPDs of Sarada Krishna Homoeopathic Medical College.
- The complaints associated with the disease were recorded from the patient after a detailed case-taking session in the general case-taking format adopted in Sarada Krishna Homoeopathic Medical College. The severity of allergic rhinitis was monitored by a symptom severity assessment chart.

#### **OUTCOME ASSESSMENT**

• The efficacy of Arsenicum iodatum in allergic rhinitis was assessed based on improvement in clinical presentation and reduction in the severity of symptoms.

#### STATISTICAL TECHNIQUES & DATA ANALYSIS

- Pre and Post scores of the two groups administered with 30<sup>th</sup> potency (CM) and 0/3 potency (LM) respectively were statistically analyzed for significance by using the paired t-test.
- A Chi-square test of independence was done to compare the effectiveness of CM & LM potencies of Arsenicum Iodatum in Allergic Rhinitis among children.

#### ETHICAL ISSUE

Ethical approval was given by Sarada Krishna Homoeopathic Medical College Institutional Ethics Committee.

## **5.0 OBSERVATIONS AND RESULTS**

S.NO	AGE-GROUP	NO. OF CASES
1	5 to 11	15
2	12 to 18	15

## TABLE 1 AGE OF CASES – 30 C POTENCY

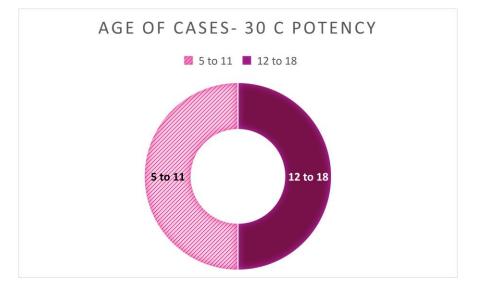


FIG 1 AGE OF CASES - 30 C POTENCY

S.NO	AGE-GROUP	NO. OF CASES
1	5 to 11	15
2	12 to 18	15

## TABLE 2 AGE OF CASES – 0/3 POTENCY

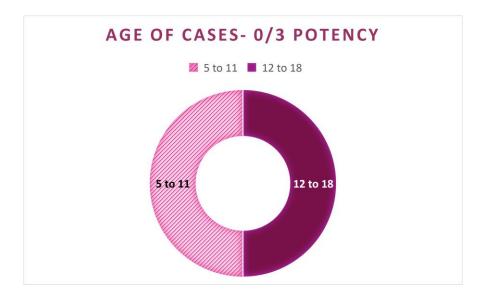
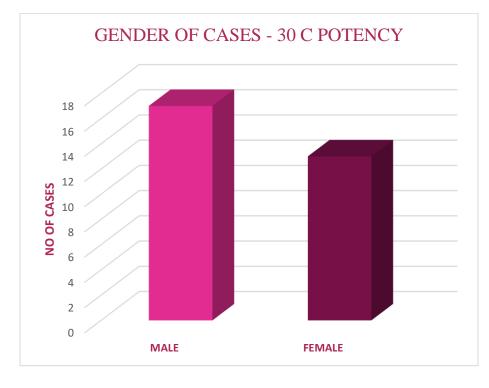


FIG 2 AGE OF CASES- 0/3 POTENCY

S.NO	GENDER	NO OF CASES
1	MALE	17
2	FEMALE	13

## TABLE 3 GENDER OF CASES – 30 C POTENCY





S.NO	GENDER	NO. OF CASES
1	MALE	12
2	FEMALE	18

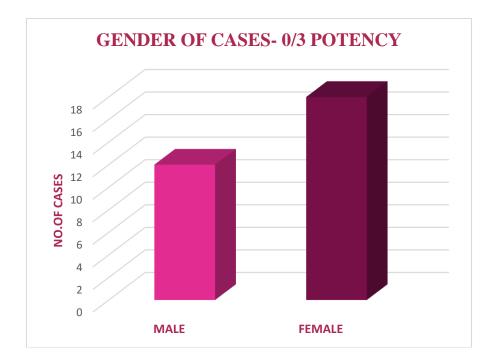


FIG 4 GENDER OF CASES – 0/3 POTENCY

## TABLE 5 SEVERITY SCORES – 30 C POTENCY

SEVERITY SCORES			
S.NO	PRE	POST	
1	8	2	
2	6	3	
3	7	2	
4	6	3	
5	6	2	
6	7	0	
7	6	1	
8	9	3	
9	9	2	
10	6	2	
11	9	0	
12	6	2	
13	11	0	
14	6	3	
15	5	2	
16	9	0	
17	6	3	
18	7	2	
19	6	3	
20	6	3	
21	9	2	
22	9	0	
23	10	0	
24	11	0	
25	7	2	
26	6	3	
27	8	2	
28	6	2	
29	5	1	
30	7	2	

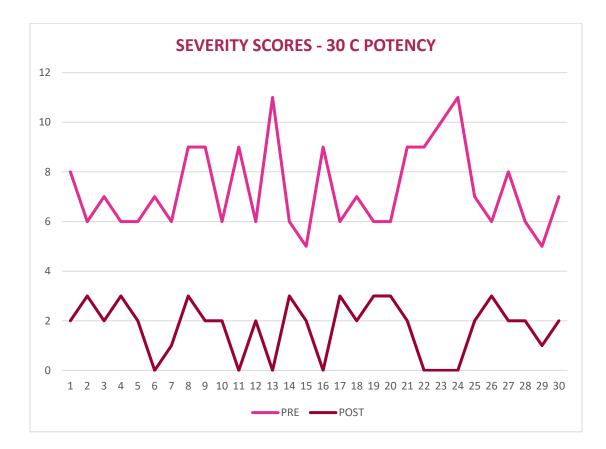


FIG 5 SEVERITY SCORES – 30 C POTENCY

## TABE 6 SEVERITY SCORES – 0/3 POTENCY

SEVERITY SCORE			
S.NO	PRE	POST	
1	6	0	
2	9	2	
3	7	2	
4	8	3	
5	9	0	
6	6	0	
7	9	2	
8	5	1	
9	5	2	
10	6	0	
11	6	3	
12	6	1	
13	6	2	
14	7	0	
15	6	2	
16	6	2	
17	9	2	
18	9	0	
19	6	2	
20	6	2	
21	7	2	
22	9	0	
23	6	2	
24	6	1	
25	6	3	
26	6	2	
27	6	3	
28	6	2	
29	7	2	
30	6	2	

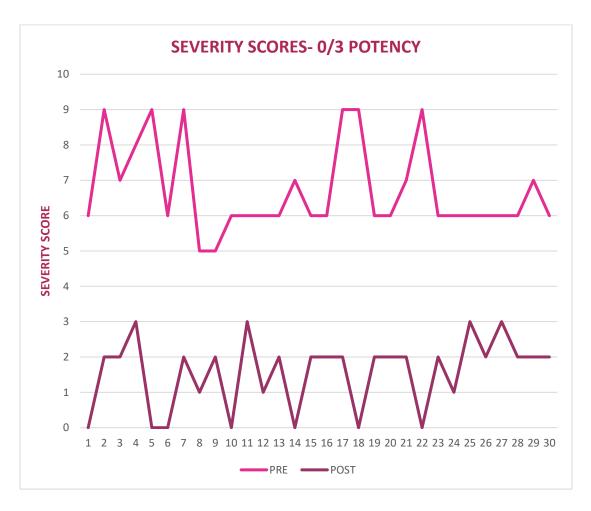
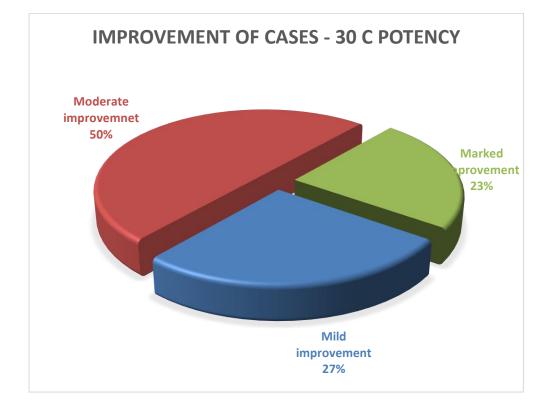


FIG 6 SEVERITY SCORES - 0/3 POTENCY

S.NO	INFERENCE	NO. OF CASES
1	Mild improvement	8
2	Moderate improvement	15
3	Marked improvement	7

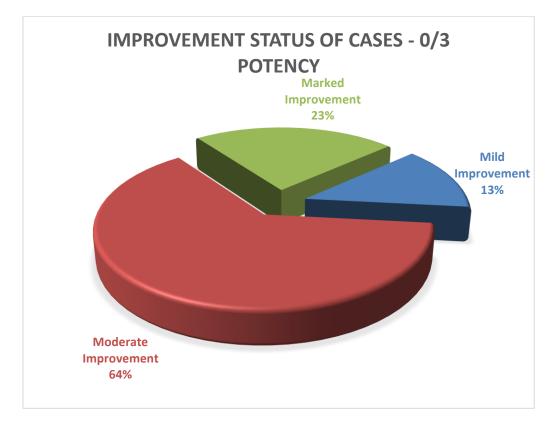
## TABLE 7 IMPROVEMENT STATUS OF CASES – 30 C POTENCY



### FIG 7 IMPROVEMENT STATUS OF CASES – 30 C POTENCY

S.NO	INFERENCE	NO. OF CASES
1	Mild Improvement	4
2	Moderate Improvement	19
3	Marked Improvement	7

## TABLE 8 IMPROVEMENT STATUS OF CASES – 0/3 POTENCY



## FIG 8 IMPROVEMENT STATUS OF CASES – O/3 POTENCY

## **5.1 STATISTICAL ANALYSIS**

**Question to be answered:** In the management of allergic rhinitis in children which among the centesimal or fifty millesimal scale potencies of Arsenicum Iodatum is more effective?

**H**<sub>0</sub>: Both centesimal and fifty millesimal scales of Arsenicum Iodatum are equally effective in the management of allergic rhinitis among children.

**H**<sub>a</sub>: Both centesimal and fifty millesimal scales of Arsenicum Iodatum shows variation in improvement in managing allergic rhinitis in children.

#### **Test statistics:**

t-Test: Paired Two Sample for Means – 30 C Potency			
Column1	Pre	Post	
Mean	7.3	1.733333	
Variance	2.906897	1.236782	
Observations	30	30	
Pearson Correlation	-0.61105		
Hypothesized Mean Difference	0		
Df	29		
t Stat	11.99523		
P(T<=t) one-tail	4.57E-13		
t Critical one-tail (at 5% significance)	1.699127		
t Critical one-tail (at 1% significance)	2.462021		
P(T<=t) two-tail	9.15E-13		
t Critical two-tail (at 5% significance)	2.04523		
t Critical two-tail (at 1% significance)	2.756386		

# TABLE 9. 't' TEST TABLE – PRE AND POST SCORING FOR ALLERGICRHINITIS – 30 C POTENCY

# TABLE 10. 't' TEST TABLE – PRE AND POST SCORING FOR ALLERGICRHINITIS – 0/3 POTENCY

t-Test: Paired Two Sample for Means- 0/3 potency			
Column1	Pre	Post	
Mean	6.733333333	1.56666667	
Variance	1.650574713	1.01264368	
Observations	30	30	
Pearson Correlation	-0.19915116		
Hypothesized Mean Difference	0		
Df	29		
t Stat	15.87388133		
P(T<=t) one-tail	3.86366E-16		
t Critical one-tail (at 5% significance)	1.699127027		
t Critical one-tail (at 1% significance)	2.46202136		
P(T<=t) two-tail	7.72732E-16		
t Critical two-tail (at 5% significance)	2.045229642		
t Critical two-tail (at 1% significance)	2.756385904		

**Comparison with tabled value:** The critical ratio t precedes a dispersion with 'n-1' df. The t tabled value at the 5 % level of significance is 2.04522 (t Critical two-tail) and at the 1% level of significance is 2.7563 for 29 df. The two-tailed P-value is < 0.0001. t Stat values 11.99523 (30 C potency) and 15.87388 (0/3 potency) are greater than the tabled values at 5% and 1% levels of significance for 29 df.

Column1	30 C potency	0/3 Potency	Row Totals
MARKED IMPROVEMENT	7 (7.00) [0.00]	7 (7.00) [0.00]	14
MODERATE IMPROVEMENT	15 (17.00) [0.24]	19 (17.00) [0.24]	34
MILD IMPROVEMENT	8 (6.00) [0.67]	4 (6.00) [0.67]	12
Column Totals	30	30	60 (Grand Total)

#### TABLE 11 CHI-SQUARE TEST OF INDIPENDENCE

The chi-square statistic is 1.8039. The p-value is .405773. The result is not significant at p < .05.

**Inference:** There is a significant improvement in both Groups (1 & 2) in which Arsenicum Iodatum was given in 30 C potency and 0/3 potency respectively. A chi-square test of independence was performed to examine whether the centesimal or 50 millesimal potencies of Arsenicum Iodatum are more effective in managing Allergic rhinitis among children. The chi-square statistic is 1.8039. The p-value is .405773. The result is not significant at p < .05. Thus, Null hypothesis H<sub>0</sub> is accepted, concluding that both centesimal and 50 millesimal scale potencies of Arsenicum Iodatum are equally effective in the management of Allergic Rhinitis among children.

#### 6. DISCUSSION

A sample of 60 cases having allergic rhinitis was taken from OPDs of Sarada Krishna Homoeopathic Medical College, Kulasekharam. Cases were then divided into two groups by random purposive sampling. Arsenicum iodatum in centesimal (30<sup>th</sup> potency) was administered to group 1 consisting of 30 cases and Arsenicum iodatum in 50millesimal (0/3potency) was given to group 2 consisting of 30 cases. The improvement assessment was done through clinical observation and improvement in severity scores of cases. After comparing with existing literature following inferences were made

### AGE

In Group 1 in which Arsenicum iodatum was given in 30<sup>th</sup> potency,15 cases (50%) were in the age group 5-11 years and 15 cases (50%) were in the age group 12-18 years. Likewise, in Group 2 in which Arsenicum iodatum was given in 0/3 potency, 15 cases (50%) were in the age group 5-11 years and 15 cases (50%) were in the age group 12-18 years.

#### GENDER

In Group 1, 17 cases (56.6%) were males and 13 cases (43.3%) were females, whereas in Group 2, 12 cases (40%) were males and 18 cases (60%) were females. Altogether 29 cases (48.3%) were males and 31 cases (51.6%) were females.

#### **IMPROVEMENT STATUS OF CASES**

In Group 1, after homoeopathic intervention Arsenicum iodatum 30 C, 7 cases (23%) showed marked improvement, 15 cases(50%) moderate improvement and 8 cases (27%)mild improvement.

In Group 2, after homoeopathic intervention Arsenicum iodatum 0/3, 7 cases(23%) showed marked improvement,19 cases(64%) moderate improvement and 4 cases(13%)mild improvement. Altogether there were 14 cases (23.3%) with marked improvement, 34 cases(56.7%)with moderate improvement and 12 cases (20%)with mild improvement.

#### STATISTICAL INFERENCE

Paired t-test was done to assess the effectiveness of Arsenicum Iodatum 30 C and 0/3 potencies in Allergic rhinitis among children. The two-tailed P-value was < 0.0001. t Stat values 11.99523 (30 C potency) and 15.87388 (0/3 potency) were greater than the tabled values at 5% and 1% levels of significance for 29 df. There was a significant improvement in both Groups (1 & 2) in which Arsenicum Iodatum was given in 30 C potency and 0/3 potency respectively. A chi-square test of independence was performed to examine whether the centesimal or 50 millesimal potency of Arsenicum Iodatum is more effective in managing Allergic rhinitis among children. The chi-square statistic was 1.8039. The p-value was .405773. The result was not significant at p < .05. Thus Null hypothesis H<sub>0</sub> was accepted, concluding that both centesimal and 50 millesimal scale potencies of Arsenicum Iodatum are equally effective in the management of Allergic Rhinitis among children.

#### **6.1 LIMITATIONS**

- Pre and post assessment criteria were based solely on the severity of clinical symptoms; no diagnostic laboratory investigations were employed in this study.
- The sample size was not large.

## 7.0 SUMMARY

A clinical study of Arsenicum iodatum in allergic rhinitis with centesimal and millesimal scale potencies. A sample of 60 cases having allergic rhinitis was taken from OPDs of Sarada Krishna Homoeopathic Medical College, Kulasekharam. Cases were then divided into two groups by random purposive sampling. Arsenicum iodatum in centesimal (30<sup>th</sup> potency) was administered to group 1consisting of 30 cases and Arsenicum iodatum in 50millesimal (0/3potency)was given to group 2 consisting of 30 cases. The assessment was done through clinical observation and improvement in severity scores of cases. A statistical test is done. The following points are summarized.

- In Group 1 in which Arsenicum iodatum was given in 30th potency,15 cases (50%) were in the age group 5-11 years and 15 cases(50%)were in the age group 12-18 years.
- Likewise, in Group 2 in which Arsenicum iodatum was given in 0/3 potency, 15 cases (50%) were in the age group 5-11 years and 15 cases (50%) were in the age group 12-18 years.
- In Group 1, 17 cases (56.6%) were males and 13 cases (43.3%) were females, whereas in Group 2, 12 cases (40%) were males and 18 cases (60%) were females.
- Altogether 29 cases (48.3%) were males and 31 cases (51.6%) were females.
- In Group 1, after homoeopathic intervention Arsenicum iodatum 30 C, 7 cases (23%) showed marked improvement,15 cases (50%) moderate improvement and 8 cases (27%)mild improvement.
- In group 2, after homoeopathic intervention arsenicum iodatum 0/3, 7 cases(23%) showed marked improvement,19 cases(64%) moderate improvement and 4 cases(13%)mild improvement.
- Altogether there were14 cases (23.3%) with marked improvement, 34 cases(56.7%) with moderate improvement and 12 cases (20%) with mild improvement.
- Paired t-test was done to assess the effectiveness of Arsenicum Iodatum 30 C and
   0/3 potencies in Allergic rhinitis among children. The two-tailed P-value was <</li>

0.0001. t Stat values 11.99523 (30 C potency) and 15.87388 (0/3 potency) were greater than the tabled values at 5% and 1% levels of significance for 29 df. There was a significant improvement in both Groups (1 & 2) in which Arsenicum Iodatum was given in 30 C potency and 0/3 potency respectively.

• A chi-square test of independence was performed to examine whether the centesimal or 50 millesimal potency of Arsenicum Iodatum is more effective in managing Allergic rhinitis among children. The chi-square statistic was 1.8039. The p-value was .405773. The result was not significant at p < .05. Thus Null hypothesis H<sub>0</sub> was accepted, concluding that both centesimal and 50 millesimal scale potencies of Arsenicum Iodatum are equally effective in the management of Allergic Rhinitis among children.

### **8.0 CONCLUSION**

This clinical study was indented to assess the effectiveness of fifty millesimal and centesimal scale potencies in Allergic Rhinitis among children. Furthermore, the objectives of this study were to analyse the role of Arsenicum Iodatum in Allergic Rhinitis and to compare the effectiveness of fifty millesimal scale potency (0/3) and centesimal scale potency (30). All 60 cases showed improvement after homoeopathic intervention Arsenicum iodatum of which, 14 cases (23.3%) with marked improvement, 34 cases (56.7%) with moderate improvement and 12 cases (20%) with mild improvement. In Group 1, after homoeopathic intervention Arsenicum iodatum 30, 7 cases (23%) showed marked improvement. In group 2, after homoeopathic intervention Arsenicum iodatum 0/3, 7 cases (23%) showed marked improvement, 19 cases (64%) moderate improvement and 4 cases (13%) mild improvement.

A Chi-square test of independence was performed. The p-value was .405773. The result was not significant at p < .05. Thus statistical analysis concluded that both centesimal and 50 millesimal scale potencies of Arsenicum Iodatum are equally effective in the management of Allergic Rhinitis among children.

#### **8.1 RECOMMENDATIONS**

- More sophisticated laboratory investigations are recommended to assess the effectiveness of homoeopathic medicines.
- A comparative study on the effectiveness of Arsenicum iodatum in different potencies of 50 millesimal scale is recommended.

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## 10. 0 APPENDICES APPENDIX I

## GLOSSARY

- 1. Rhinorrhoea: Rhinorrhea or rhinorrhoea is the free discharge of thin nasal mucus fluid. The condition is commonly known as a runny nose.
- 2. Bronchospasm: Bronchospasm is a tightening of the muscles that line the airways (bronchi) in your lungs. When these muscles tighten, your airways narrow. Narrowed airways don't let as much air come in or go out of your lungs.
- 3. Turbinate: Turbinates, which are also called nasal concha or conchae (plural), are shell-shaped networks of bones, vessels, and tissue within the nasal passage
- 4. Nasal Polyps: Nasal polyps are soft, painless, noncancerous growths on the lining of your nasal passages or sinuses
- 5. Rhinoscopy: A Rhinoscope (or Nasoscope) is a thin, tube-like instrument used to examine the inside of the nose.
- Eosinophilia: Eosinophilia is a higher than normal level of eosinophils. Eosinophils are a type of disease-fighting white blood cell. This condition most often indicates a parasitic infection, an allergic reaction or cancer.

## **APPENDIX – II**

## SARADA KRISHNA HOMOEOPATHIC MEDICAL COLLEGE & HOSPITAL KULASEKHARAM, KANYAKUMARI DIST, TAMIL NADU- 629161

	ACUTE	CASE RECORD						
Date:	l	Jnit :	Regn.No:					
1.PERSONAL DATA								
Name:								
Age:	Sex: M/F/T	Religion:	Nationality:					
Name of Father/Mo	other/Spouse/Guardia	an/Son/Daughter:						
Marital status:								
Occupation:		Income per capi	ita:					
Family size:								
Diet:								
Address:								
Phone No :		Residence						
Mobile		e-mail						
Referred by		to						

## **DIAGNOSIS:**

Acute	Sub-acute	Chronic	
Cured	Relieved	Otherwise	Expired

## Attending physician

## 2. PRESENTING COMPLAINT (S)

Complaints	Location	Sensations/Character	Modalities(<,>)	Concomitants/
with	&	&	&	Associated
Duration	Extension	Pathology	A/F(=)	symptoms
				with duration

## 3. History Of Present Illness:

## 4. History of Previous Illness With Treatment Adopted

## 5. General Symptoms

(General features, Physical generals, desires, aversion, Reaction to, Mental generals, Menstrual history and Travel history)

## 6. PHYSICAL EXAMINATION

#### A) General examination

- Conscious/unconscious :
- General appearance(expression,look,decubitus,etc):
- Intelligence and education level :
- General built up and nutrition :
- Height
- Weight
- BMI
- Anaemia:
- Jaundice:
- Clubbing:
- Cyanosis:
- Oedema :
- Skin (pigmentation, hair distribution, warts, etc)
- Nails
- Gait
- Lymphadenopathy(cervical, axillary, inguinal):
- Blood pressure
- Pulse rate:
- Resp rate:
- Temp
- Others

## **B.SYSTEMIC EXAMINATION**

(Resp system. CVs. GIT, GUs, loco system, Nerv system, ENT, Eye, Gynae and others)

## 7. LAB INVESTIGATIONS & FINDINGS

## 8. PROVISIONAL DIAGNOSIS

## 9. DATA PROCESSING

A . Analysis of case

**B.** Evaluation of symptoms

**C. Totality Of Symptoms** 

## 10 . SELECTION OF MEDICINE (Repertorial/Non-Repertorial)

## 11. SELECTION OF POTENCY AND DOSE (justified)

**12. PRESCRIPTION** 

## 13. GENERAL MANAGEMENT AND AUXILLARY MEASURES

## 14. PROGRESS & FOLLOW UP

DATE	SYMPTOM(S) CHANGES	INFERENCE	PRESCRIPTION

## **APPENDIX – III SAMPLE CASE**

#### SARADA KRISHNA

## HOMOEOPATHIC MEDICAL COLLEGE & HOSPITAL

KULASEKHARAM, KANYAKUMARI DIST, TAMIL NADU- 629161

#### ACUTE CASE RECORD

Date: 04-09-2021

Unit: VB

Regn.No: 4167/21

#### **1.PERSONAL DATA**

Name: \*\*\*\*\*

Age: 8

Religion: Christian Nationality: Indian

Name of mother: Mrs.Jency

Sex: female

Occupation: Student

Diet: mixed

Address: post street, colachel

Mobile:

## 2. PRESENTING COMPLAINT(S)

Complaints	Location	Sensations/Character	Modalities	Concomitants/
with	&	&	(<,>)	Associated
Duration	Extension	Pathology	&	symptoms
			A/F (=)	with duration
Patient	Respiratory	Sneezing, watery	<morning< td=""><td></td></morning<>	
complaint of	system	discharge	<night< td=""><td></td></night<>	
sneezing			<after bathing<="" td=""><td></td></after>	
since 2				
months		Irritation in throat	<morning< td=""><td></td></morning<>	

#### **3. HISTORY OF PRESENT ILLNESS:**

Patient complaint of sneezing and watery discharge for two months, especially worse during the morning, night and after bathing, and also he is having irritation in the throat for 2 months which aggravated during the morning. For this complaint, she never took any other medication

## 4. HISTORY OF PREVIOUS ILLNESS WITH TREATMENT ADOPTED

Nothing relevant

## 5. GENERAL SYMPTOMS

Appetite-normal Thirst-normal Sleep-good Stool-regular Urine-normal Sweat-generalised

## 6. PHYSICAL EXAMINATION

#### A) General examination

- Conscious/unconscious: Conscious
- Intelligence and education level: studying
- General built up and nutrition: good
- Anaemia: no
- Jaundice: no
- Clubbing: no
- Cyanosis: no
- Oedema: no
- Gait: normal steady gait
- Lymphadenopathy (cervical, axillary, inguinal): no
- Resp rate: 17

• Temp: 98.6° F

### **B. SYSTEMIC EXAMINATION**

(Resp system. CVs. GIT, GUs, loco system, nerv system, ENT, Eye, Gynae and others) RS – Normal vesicular breath sound heard all over the lung field. No added sounds. CVS – S1 & S2 were heard in all 4 cardiac areas. No murmur. O/E - chest clear

### 7. LAB INVESTIGATIONS & FINDINGS

Nil

#### 8. PROVISIONAL DIAGNOSIS

Allergic rhinitis

#### 9. SELECTION OF MEDICINE (Repertorial/Non-Repertorial)

Non-repertorial selection

#### 10. SELECTION OF POTENCY AND DOSE (justified)

According to homoeopathic principles

## **11. PRESCRIPTION**

R ARSENICUM IODATUM 0/3/7D (1 Dose HS/Day) .

#### **13. GENERAL MANAGEMENT AND AUXILLARY MEASURES**

Advice to avoid cold and dust exposure Advice to avoid cold food and drinks Advice warm water gargling

## 14. PROGRESS & FOLLOW UP

DATE	SYMPTOM(S) CHANGES	INFERENCE	PRESCRIPTION
11-09-2021	Sneezing better Coryza better Throat irritation- nil	Improved	R 1.ARSENICUM IODATUM 0/3/7 Dose (HS) – 1D HS/Day

## **APPENDIX IV**

# SCORING CRITERIA FOR THE ASSESSMENT OF IMPROVEMENT IN ALLERGIC RHINITIS

## SCORING FOR ALLERGIC RHINITIS{SFAR}

Scoring of symptoms	3	2	1	0
Rhinorrhoea	severe	moderate	mild	absent
Nasal congestion	severe	moderate	mild	absent
Nasal itching	severe	moderate	mild	absent
Sneezing	severe	moderate	mild	absent
Itching in eyes	severe	moderate	mild	absent

TOTAL MARKS:15

				APPENDIX-V			
S.NO	OP.NO	AGE	MASTER	CHART - CENTESIMAL POTENCY (30 PRESENTING COMPLAINTS	C) DISE INTEN SCO PRE	ISITY	INFERENCE
1	5683/21	16	F	Sneezing,acrid watery discharge <evening,dust exposure,cold="" exposure;<br="">lachrymation</evening,dust>	8	2	Moderate improvement
2	2061/21	16	F	Sneezing, watery discharge; <cold climate,cold drinks</cold 	6	3	Mild improvement
3	6708/21	8	F	Sneezing,water nasal discharge <early morning ,cold exposure,head hot,steam inhalation; Itching and redness of eyes</early 	7	2	Moderate improvement
4	3018/21	12	М	Sneezing,watery discharge <night,early morning,cold exposure</night,early 	6	3	Mild improvement
5	7603/16	10	м	Sneezing,watery discharge; <morning,cold drinking<="" td="" water=""><td>6</td><td>2</td><td>Moderate improvement</td></morning,cold>	6	2	Moderate improvement
6	6709/21	16	F	Sneezing,watery coryza <night,rainy season,cold exposure</night,rainy 	7	0	Marked improvement
7	1309/18	11	м	Sneezing,watery coryza <early morning,after bathing,dust exposure,rainy season</early 	6	1	Moderate improvement
8	7947/13	15	М	Sneezing,coryza <morning, dust;="" itching<br="">and lachrymation</morning,>	9	3	Mild improvement
9	3262/21	13	М	Sneezing coryza < after bathing, early morning afternoonIrritation in throat	9	2	Moderate improvement
10	3607/21	5	М	Sneezing,watery discharge <dust,morning,cold season,sweating of head</dust,morning,cold 	6	2	Moderate improvement
11	4694/21	12	М	Sneezing,coryza <morning,cold drinks;<br="">Itching inside throat</morning,cold>	9	0	Marked improvement
12	3222/21	11	М	Sneezing,watery discharge <cold climate,morning,dust="" exposure<="" td=""><td>6</td><td>2</td><td>Moderate improvement</td></cold>	6	2	Moderate improvement
13	5912/21	8	М	Sneezing,coryza <dust and="" exposure,cold="" itching="" nose<="" ofeyes,ears="" td="" water;=""><td>11</td><td>0</td><td>Marked improvement</td></dust>	11	0	Marked improvement
14	5656/21	12	F	Sneezing,watery discharge <after bathing,excessive sweating,night</after 	6	3	Mild improvement
15	4066/21	6	F	Sneezing,watery discharge <morning,after bathing</morning,after 	5	2	Moderate improvement
16	5845/21	13	М	Sneezing,coryza,rising up in morning,cold drinks,winter season; Itching inside throat	9	0	Marked
17	1180/21	16	М	Sneezing,watery discharge; <rainy season,night,cold exposure</rainy 	6	3	Mild improvement
18	6232/21	6	F	Sneezing,watery discharge; <cold exposure,morning</cold 	7	2	Moderate
19	5639/21	12	F	Sneezing,watery discharge; <cold exposure,morning</cold 	6	3	improvement Mild improvement
20	6017/21	7	м	Sneezing,watery discharge,morning,night,after bathing	6	3	Mild
21	3796/21	12	М	Sneezing,coryza <early morning,dust<br="">exposure,travelling,cold climate. Reddish eyes</early>	9	2	Moderate improvement
22	8616/19	10	F	Sneezing,watery discharge <rising bed;="" block<="" from="" nose="" td=""><td>9</td><td>0</td><td>Marked improvement</td></rising>	9	0	Marked improvement
23	2980/18	6	F	Sneezing,coryza <dust exposure:="" redness<br="">and itching of eyes</dust>	10	0	Marked improvement
24	6070/18	7	М	Sneezing, watery discharge <dust exposure, travelling, cold climate Reddish appearence of both eyes</dust 	11	0	Marked improvement
25	58/15	7	F	Sneezing,coryza <dust exposure,cold<br="">water; Itching ofeyes,ears and nose</dust>	7	2	Moderate improvement
26	3206/20	11	F	Sneezing, watery discharge; <cold climate,cold drinks</cold 	6	3	Mild improvement
27	1760/21	12	М	Sneezing,acrid watery discharge <evening,dust eposure.<br="" exposure,cold="">lachrymation</evening,dust>	8	2	Moderate improvement
28	1679/18	14	М	Sneezing, watery discharge <morning, cold="" drinking<="" td="" water=""><td>6</td><td>2</td><td>Moderate improvement</td></morning,>	6	2	Moderate improvement
29	7144/19	12	М	Sneezing,watery discharge, <morning,cold drinking<="" td="" water=""><td>5</td><td>1</td><td>Moderate improvement</td></morning,cold>	5	1	Moderate improvement
30	3906/10	8	F	Sneezing,coryza <dust exposure,cold<br="">water ; Itching ofeyes,ears and nose</dust>	7	2	Moderate improvement

	MASTER CHART - 0/3 POTENCY						
						EASE NSITY	
SL.NO	OP.NO	AGE	SEX	PRESENTING COMPLAINTS		RES	INFERENCE
					PRE	POST	
1	4167/21	8	F	Sneezing,watery coryza <morning,night,after bathing<="" td=""><td>6</td><td>0</td><td>Marked improvement</td></morning,night,after>	6	0	Marked improvement
2	6033/21	12	М	Sneezing, coryza, <early exposure,cold="" exposure.="" eyes<="" morning,dust="" of="" redness="" td=""><td>9</td><td>2</td><td>Moderate improvement</td></early>	9	2	Moderate improvement
3	2257/21	9	F	Sneezing,watery nasal discharge <morning,after bathing<="" td=""><td>7</td><td>2</td><td>Moderate improvement</td></morning,after>	7	2	Moderate improvement
4	1177/16	13	М	Sneezing,coryza of watery discharge <rising bed,morning="" from="" throat<br="">itching</rising>	8	3	Mild improvement
5	2088/20	12	F	Sneezing,coryz <dust exposue,="" itching="" of<br="">nose</dust>	9	0	Marked improvement
6	3927/21	11	М	Sneezing,coryza <dust,morning,after rising<="" td=""><td>6</td><td>0</td><td>Marked improvement</td></dust,morning,after>	6	0	Marked improvement
7	8557/19	12	М	Sneezing,coryza <cold exposure,night<br="">,morning</cold>	9	2	Moderate improvement
8	1134/18	12	F	Sneezing,coryza with watery discharge <midnight,early morning<="" td=""><td>5</td><td>1</td><td>Moderate improvement</td></midnight,early>	5	1	Moderate improvement
9	3644/15	11	F	Sneezing <early block<="" morning,sunheat;="" nose="" td=""><td>5</td><td>2</td><td>Moderate improvement</td></early>	5	2	Moderate improvement
10	6190/13	5	М	Sneezing,coryza <early morning,dust<br="">exposure</early>	6	0	Marked improvement
11	1715/20	11	М	Sneezing,coryza <early morning,dust<br="">exposure. Itching in the eyes</early>	6	3	Mild improvement
12	2668/20	14	F	Sneezing,coryza with watery discharge <cold exposure,dust<="" td="" water,rain=""><td>6</td><td>1</td><td>Moderate improvement</td></cold>	6	1	Moderate improvement
13	2856/21	13	М	Sneezing,coryza <cold drinks,after<br="">raining</cold>	6	2	Moderate improvement
14	10795/14	9	М	Sneezing,coryza <morning,cold climate,night</morning,cold 	7	0	Marked improvement
15	822/19	13	F	Sneezing,coryza <cold juice,cold<br="">climate,fanning</cold>	6	2	Moderate improvement
16	1225/21	16	F	Sneezing,coryza <head bathing,fanning,dust,cold exposure</head 	6	2	Moderate improvement
17	6070/18	8	F	Sneezing,coryza <dust,cold exposure<br="">Itching in ears</dust,cold>	9	2	Moderate improvement
18	1727/20	12	М	Sneezing,watery discharge from nose <evening,early morning;="" of<br="" redness="">eyes</evening,early>	9	0	Marked improvement
19	28/20	11	F	Sneezing,watery discharge from nose <dust,winter,cold exposure<="" td=""><td>6</td><td>2</td><td>Moderate improvement</td></dust,winter,cold>	6	2	Moderate improvement
20	5240/21	13	F	Sneezing,coryza <dust,morning; eyes<="" in="" itching="" td=""><td>6</td><td>2</td><td>Moderate improvement</td></dust,morning;>	6	2	Moderate improvement
21	2333/21	5	F	sneezing,watery discharge from nose <head sweat,bathing<="" td=""><td>7</td><td>2</td><td>Moderate improvement</td></head>	7	2	Moderate improvement
22	1503/21	11	F	Sneezing,coryza <cold and="" drinks,early="" eyes<="" food="" morning="" of="" reddness="" td=""><td>9</td><td>0</td><td>Marked improvement</td></cold>	9	0	Marked improvement
23	6244/21	5	М	Sneezing,watery yellowish coryza <night< td=""><td>6</td><td>2</td><td>Moderate improvement</td></night<>	6	2	Moderate improvement
24	6443/21	12	М	Sneezing,watery discharge from nose <morning,dust,changing room.<="" td=""><td>6</td><td>1</td><td>Moderate improvement</td></morning,dust,changing>	6	1	Moderate improvement
25	6225/21	10	F	Sneezing,watery discharge from nose <fanning,dust exposure,night<="" td=""><td>6</td><td>3</td><td>mild improvement</td></fanning,dust>	6	3	mild improvement
26	6656/21	6	М	Sneezing,coryza <cold bath,dust="" exposure<="" td=""><td>6</td><td>2</td><td>Moderate improvement</td></cold>	6	2	Moderate improvement
27	6022/21	12	F	Sneezing,coryza <evening,cold exposure<="" td=""><td>6</td><td>3</td><td>Mild improvement</td></evening,cold>	6	3	Mild improvement
28	6616/21	15	F	Sneezing,coryza <dust,smoke< td=""><td>6</td><td>2</td><td>Moderate improvement</td></dust,smoke<>	6	2	Moderate improvement
29	1666/21	8	F	Sneezing,watery discharge from nose <night,cold exposure,early="" morning<="" td=""><td>7</td><td>2</td><td>Moderate improvement</td></night,cold>	7	2	Moderate improvement
30	36/21	17	F	Sneezing,watery discharge from nose <night,cold drinks<="" exposure,cold="" td=""><td>6</td><td>2</td><td>Moderate improvement</td></night,cold>	6	2	Moderate improvement

## APPENDIX VI FORM - 4 : CONSENT FORM

### PART 1 of 2

# INFORMATION FOR PARTICIPANTS OF THE STUDY

**Title of the project:** 

## "THE EFFICACY OF ARSENICUM IODATUM IN CENTESIMAL AND FIFTY MILLESIMAL SCALE POTENCIES IN ALLERGIC RHINITIS AMONG CHILDREN-A COMPARATIVE STUDY"

#### 1. Name of the investigator/guide:

## Investigator: Dr. AISWARYA SEKHAR

PG Scholar Dept. of Paediatrics Sarada Krishna Homoeopathic Medical College Kanniyakumari District TamilNadu PIN- 629 161.

Guide : Dr. P. R. Sisir
Prof. & Head
Dept. of Paediatrics
Sarada Krishna Homoeopathic Medical College,
Kulasekharam
Kanniyakumari District
TamilNadu – 629 161.

#### 2. Purpose of this project/study:

- To find out the effectiveness of centesimal and fifty millesimal scale potencies in allergic rhinitis among children.
- Role of ArsenicumIodatum in allergic rhinitis.
- To compare the effectiveness of centesimal scale potency(30th)and

fiftymillesimal scale potency(0/3)

#### 3. Procedure/methods of the study:

- A sample size of 60 cases of allergic rhinitis with arsenicum iodatum visiting in OPD,IPD and rural centres of SKHMC is selected.
- Detailed case taking and recording of cases in standardized pre structuredcase record format.
- Sample size of two groups-centesimal(30<sup>th</sup> potency) and fifty millesimal(0/3 potency)each with thirty cases.
- Group one-arsenicum iodatum will be administered in centesimal scalepotency(30th potency)for thirty cases
- Group two-arsenicum iodatum will be administered in fifty millesimalscale potency(0/3) for thirty case
- Scoring chart for assessment of allergic rhinitis in children.
- 4. Expected duration of the subject participation: three-six months
- 5. The benefits to be expected from the research to the participant or to others and the post-trial responsibilities of the investigator: Improvement in allergic rhinitis and the intensity of the symptoms.
- **6.** Any risks expected from the study to the participant: No, there is no expected risk in this study.
- 7. Maintenance of confidentiality of records: I will not disclose identity of the research participants at any time, during or after the study period or during publication. Securely store data documents in locked locations and Encrypt identifiable computerized data. All information revealed by you will be kept as strictly confidential.
- **8.** Provision of free treatment for research related injury: No such injuries are expected to happen in this research.
- **9.** Compensation of the participants not only for disability or death resulting from such injury but also for unforeseeable risks: Yes. But this research is safe and sound from creating injuries leading to disability or death.

- 10. Freedom to withdraw from the study at any time during the study period without the loss of benefits that the participant would otherwise be entitled: Your participation in this study is voluntary and you are free to refuse treatment or withdraw from the study at any time if you are not satisfied.
- 11. Possible current and future use of the biological material and of the data to be generated from the research and if the material is likely to be used for secondary purposes or would be shared with others, this should be mentioned: Future uses of the biological material and the data to be generated from the research and if the material is likely to be used for secondary purposes or will be shared with others only with your consent.

#### 12. Address and telephone number of the investigator and co-investigator/guide:

Investigator:	Dr. AISWARYA SEKHAR
	PG Scholar
	Dept. of Paediatrics
	Sarada Krishna Homoeopathic Medical
	College, Kulasekharam,
	Kanyakumari
	Tamil Nadu
	629161
	Ph: 7356445377
Guide :	Dr. P. R. Sisir
	Prof. & Head
	Dept. of Paediatrics
	Sarada Krishna Homoeopathic Medical
	College, Kulasekharam
	Kanniyakumari
	District
	TamilNadu
	Pin- 629 161.
	Ph. No: 9443474941

**13. The patient information sheet must be duly signed by the investigator:** Yes, duly signed with date and time.

#### CONSENT FORM (for participants less than18 years of age)

PART 2 of 2- Parent/Legally accepted representative (LAR)

Participant's name:

Address:

Parent/LAR's name:

#### Title of the project:

## "THE EFFICACY OF ARSENICUM IODATUM IN CENTESIMAL AND FIFTY MILLESIMAL SCALE POTENCIES IN ALLERGIC RHINITIS AMONG CHILDREN-ACOMPARATIVE STUDY."

The details of the study have been provided to me in writing and explained to me in my language. I confirm that I have understood the above study and had the opportunity to ask questions. I understand that my child/ward's participation in the study is voluntary and that I am free to withdraw my child/ward at any time, without giving any reason, without the medical care that will normally be provided by the hospital being affected. I agree not to restrict the use of anydata or results that arise from this study provided such use is only for the scientific purpose(s). I have been given an information sheet giving details of the study. I fully consent to the participation of my child/ward in the above study.

Assent of child/ward obtained (for participants to 18 years of age)

Signature of the parent/ LAR:	Date	:
•		

Signature of the witness: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of the investigator:\_\_\_\_\_Date: \_\_\_\_\_