



## Non-Randomized Open Label Trial To Access The Effectiveness Of Homoeopathic Remedies In Cases Of Chronic Sinusitis

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### Abstract

**Introduction:** The most prevalent upper respiratory tract illness characterised by chronic or acute, unilateral or bilateral inflammation of the nasal mucous membrane and one or more paranasal sinuses is known as chronic rhinosinusitis (CRS). The primary underlying cause of CRS is multifactorial, including anatomical, genetic, and environmental factors. It is characterised by two or more symptoms, including anterior or posterior nasal discharge, nasal obstruction or congestion, loss of smell, reduction in odour, facial pain or pressure, and either endoscopic signs of polyps or discharge or edematous mucosa in the middle meatus that last for 12 weeks or longer. Patients with chronic sinusitis experience different combinations of the following symptoms, including headaches, epistaxis, post-nasal drip, anomalies of smell, and pus draining into the nose.

**Methodology:** - Total 30 Cases (male & female) age groups of 18-60 years were selected based on inclusion and exclusion criteria and willing participation. Outcome assessment was based on data collected from scales before and after case taking. Sino- nasal outcome test (SNOT 22) was carried out.

**Result:** - The patients showed positive results as done by students paired 't' test and one sample 't' test. In comparison to other medications, pulsatilla functioned the best for treating chronic sinusitis.

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**Keywords:** *Chronic Sinusitis, Homeopathy*

### INTRODUCTION:

Over the past ten years, respiratory problems have become more prevalent in our society, with chronic sinusitis being one of them. Chronic sinusitis is an inflammation of the paranasal sinuses brought on by bacterial, viral,

fungal, or allergic reactions. Chronic rhino-sinusitis (CRS) is the most common upper respiratory tract disease marked by chronic or acute, unilateral or bilateral inflammation of the nasal mucous membrane and one or more paranasal sinuses. A sign or symptom is considered chronic when it persists for 12 weeks or more without totally disappearing. The primary underlying cause of CRS is multifactorial, including anatomical, genetic, and environmental factors. It is characterised by two or more symptoms, including anterior or posterior nasal discharge, nasal obstruction or congestion, loss of smell, reduction in odour, facial pain or pressure, and either endoscopic signs of polyps or discharge or edematous mucosa in the middle meatus that last for 12 weeks or longer. Patients with chronic sinusitis experience different combinations of the following symptoms, including headaches, epistaxis, post-nasal drip, anomalies of smell, and pus draining from the nose. If the infection progresses to the lower respiratory tract or the digestive tract, patients may also experience other, more severe symptoms.

Numerous pharmacological and surgical techniques, including as nasal douching, immunotherapy, corticosteroids, decongestants, antihistamines, mast-cell stabilisers, anti-leukotrienes, and antibiotics, are routinely used to treat it. Increased drug resistance for respiratory infections that causes chronic disease and higher treatment costs are linked to both excessive and improper use of antibiotics. Homoeopathic treatments act in two ways: they effectively reduce cold symptoms while also boosting immune system strength and reducing one's susceptibility to recurring colds. Evidence and statistics available demonstrate the effectiveness of both personalised and sophisticated homoeopathic sinusitis treatment. Lots of research has been done with complex homoeopathy showing clinical effectiveness for Sino-frontal with reduced cost. Studies reported that homoeopathic treatment on sinusitis have also proven to be effective in sign and symptoms as well as quality of life an individual. Uncertainty surrounds the paranasal sinuses' physiological function. They continue the respiratory cavity and have a respiratory mucosa lining them. They resemble the nose in some ways, but the responses are considerably less pronounced due to the comparatively underdeveloped nerve supply and vascular.

#### **PHYSIOLOGICAL FUNCTION OF SINUSES:**

The possible functions of the sinuses are as follows:

- ✓ Pressure dampin
- ✓ Reduction of skull weight
- ✓ Flotation of skull in water
- ✓ Mechanical rigidity Vocal resonance
- ✓ Diminution of auditory feed back
- ✓ Air conditioning
- ✓ Heat insulation

Since the inflammation almost always also affects the nose, the term "rhinosinusitis" is now accepted as the preferred term to describe inflammation of the nose and paranasal sinuses. The term "sinusitis" refers to a group of disorders characterised by inflammation of the mucosa of the paranasal sinuses.

The sinus most commonly involved is the maxillary sinus followed in turn by ethmoid, frontal and sphenoid. Very often, more than one sinus is involved (multi-sinusitis). Sometimes all the sinuses are involved, resulting in pansinusitis. Whether or not the inflammatory byproducts of the sinus cavity can freely drain into the nasal cavity through the natural ostia determines whether a sinusitis is of the "open" or "closed" variety. The symptoms of a "closed" sinusitis are more severe, and problems are more likely to develop as a result.

One of the most prevalent conditions general practitioners and otolaryngologists see is infectious rhinosinusitis. Since the common cold includes the acute viral type of rhinosinusitis, practically everyone gets it.

There are various ways that chronic rhinosinusitis can manifest; for instance, it becomes chronic when acute rhinosinusitis does not improve with treatment and continues. However, chronic rhinosinusitis can also appear without a clearly defined acute stage. Additionally, some patients with chronic rhinosinusitis may experience acute infection episodes. Even if the acute episode has been successfully treated, the chronic rhinosinusitis may still be a problem or may have become worse due to the symptoms, which may clinically resemble acute rhinosinusitis. Additionally, the role of bacteria in chronic rhinosinusitis is unknown, and the illness may form an inflammatory backdrop against which acute exacerbations of bacterial inflammation occur.

It is estimated that 75% of antibiotics prescribed for rhinosinusitis are for chronic form of this condition.

### HOMOEOPATHIC APPROACH:

In the homoeopathic medical system, sinusitis is treated by focusing on the individual with sinusitis rather than the condition. The approach takes a proper case history of each patient, as well as the patient's present complaint, past medical history, family medical history, mental general, physical general, and specific general information. Following the preparation of the case and consideration of the totality of the symptoms, which have been documented down, an appropriate homoeopathic remedy is chosen. A few indicated medicines for sinusitis are *Arsenic album Kali bich*, *Blatta orientalis*, *Lobella*, *Sulphur*, *Sinapsis*, *Nat sulph*, *Sterculla*, etc. The usefulness of certain homoeopathic medicines has not been extensively studied. Based on their knowledge and clinical expertise, qualified homoeopaths may suggest one or more of the following therapies for sinus congestion. The constitutional type of a patient is taken into consideration by homoeopaths before recommending a treatment. The constitution of a person is defined by their mental, emotional, and physical make-up in homoeopathy. When choosing the best treatment for a certain patient, a skilled homoeopath considers each of these elements.

In this study, an effort has been made to demonstrate the usefulness of a non-randomized open label trial to assess the efficacy of homoeopathic treatments in patients of chronic sinusitis.

**Study Design:** - All the data were statistically analyzed by considering the mean and standard deviation using computer software.

**Methodology:** - From 2022 to 2023 (about 52 weeks), patients were included in this study from Bharati Vidyapeeth Homoeopathic Hospital's peripheral OPD, various rural and urban camp series, OPD, and IPD. In all, 30 cases (male and female) between the ages of 18 and 60 were chosen based on inclusion and exclusion criteria and those who expressed a willing interest in participating in the study. As per homoeopathic principles, cases were taken using the standard case-taking proforma. A case form was used to document the patient's medical history and physical examination (including vital signs and a systemic examination). Data gathered from scales used before and after case taking was used to base outcome assessment. It was done the Sino-Nasal Outcome Test (SNOT 22).

### RESULT:

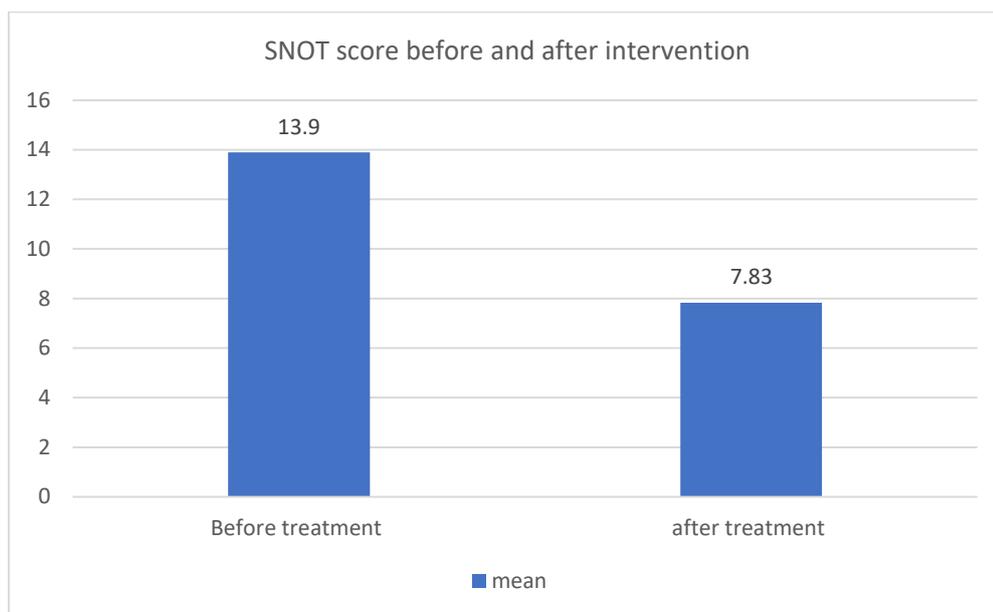
Demographic characteristics of the patients show that for this study, 30 individuals of both sexes between the ages of 18 and 60 were included. According to the totality of the symptoms, prescriptions were made. 30 patients in total, 18 men and 12 women, were gathered for the study. Out of 30 patients, 7 had Pulsatilla prescribed to them, 5 had Sabadilla, 4 had Kali Bichromium, 3 had Silicea, Hepar sulph, Arsenicum Album, and Bryonia, and the remaining 1 had Merc.Sol and Balladona. The patients showed positive results; statistical analysis was done by students paired 't' test and one sample 't' test due to small sample size.

The descriptive statistics of SNOT score before and after intervention is as shown in table 1 and graph 1. Patients with chronic sinusitis saw overall improvement or an improvement in symptoms.

**Table 1: Descriptive statistics of SNOT score before and after intervention**

| Variable | Score            | Mean± SD  | T value | P value | Decision  |
|----------|------------------|-----------|---------|---------|-----------|
| SNOT     | Before treatment | 13.9±3.0  | 1.35    | <0.001* | Reject Ho |
|          | After treatment  | 7.83±4.89 |         |         |           |
|          | Difference       | 6.06±1.8  |         |         |           |

**Test used: Paired t-test, \*\*: Highly Significant Difference, T-value: Test Statistic value**



**Graph 1: Average SNOT score before and after treatment**

In comparison to other medications, pulsatilla functioned the best for treating chronic sinusitis. Thus, the null hypothesis was disproved. The SNOT-22 Scale was used to assess chronic sinusitis before and after therapy, and the results revealed a significant decrease in symptoms. Throughout the trial period, there were no side effects reported.

## CONCLUSION:

The most prevalent upper respiratory tract illness characterised by chronic or acute, unilateral or bilateral inflammation of the nasal mucous membrane and one or more paranasal sinuses is known as chronic rhinosinusitis (CRS). In the homoeopathic medical system, sinusitis is not treated as a disease but rather as a condition that affects both acute and chronic sinusitis sufferers. This study shows that homoeopathic remedies can be used to treat chronic sinusitis. Pulsatilla, one of the homoeopathic remedies utilised in this study, is more successful than the others in treating chronic sinusitis. The findings demonstrated that in situations of chronic sinusitis with mental symptoms, medications based on the totality of symptoms can serve to both alleviate symptoms and improve overall health. To support the use of homoeopathy in cases of chronic sinusitis, more study is needed to gather evidence-based data and information.

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