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Research Article

Use Of Self-Healing Mechanism in Treating Deviated Nasal Septum Cases by Siddha Therapy- A Comparative Study

Shweta Tiwari*, Bhuvanagiri Sathya Sindhuja, Injarapu Sankar, Ram Mohan Reddy,

Dept of Siddha Medicine, Chakrasiddh health centre, Hyderabad, India

***Corresponding Author:** Shweta Tiwari, Dept of Siddha Medicine, Chakrasiddh health centre, Hyderabad, India.

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Abstract

Aim: Severe cases of DNS can cause nasal obstruction, epistaxis, sinusitis, migraine and obstructive sleep pane. To avoid surgery and relapse of symptoms, patients take up alternative methods. The aim of our study was to determine the incidence of DNS with respect to age, gender, type of septal deviation, presenting symptoms and to highlight if traditional Siddha therapy can prove to be another treatment modality in such cases by reducing the present symptoms and correction of nasal structure without intervention of conventional surgery.

Materials and methods: The present study was conducted in 60 subjects who were divided into Group I (pure siddha treatment cases) and Group II (CMM with little facial massage). The intervention outcomes measured four different clinical variables: sleep, nasal, facial pain, and emotional symptoms assessed at baseline and after the intervention period. Data was collected using the SNOT-22 Questionnaire pre-treatment and after 6 months following therapy. Data analysis involved comparing mean changes in these variables, with the significance set at $P<0.05$. Also, Reliability of the assessments was determined using Cronbach's Alpha.

Results: The male to female ratio was found to be 2.3:1. Majority (41.6%) patients were of age group 20-30 years with left side deviation (53.28%). Commonest presenting complaint was Nasal obstruction (86.3%) with sleep apnea (43%) associated with it. Post treatment, a significant relief of symptoms were observed in 91.2% in Gp I and only 61.3% in Gp II. Significant improvement was observed in nasal obstruction (92.33%) and nasal discharge (86.8%). Dependency on medications reduced by 89.4% in Gp I while in Gp II only 43.9% showed a little improvement in this aspect. Only 2 patients showed relapse of symptoms in Gp I while in Gp II 92% had same symptoms. Post-treatment nasal correction was achieved in Gp I (73%) as compared to Gp II (35.23%).

Conclusions: Our study showed that functional outcome was achieved in all Siddha treated patients in all variables. Siddha therapy with just hand pressures can prove to get good results both symptomatically and aesthetically.

Kew Words: deviated nasal septum, mookadaipu, siddha varmam therapy, mladina's classification

Abbrevations: **DNS** (Deviated nasal septum),

CMM (Conventional medical management),

SNOT-22 (Sino Nasal Outcome Test-22

Introduction

DNS is a condition in which there is displaced nasal septum towards one side or if septum has shifted away from the midline [1]. It is a frequently occurring condition that can cause nasal obstruction in an individual and may result in permanent changes in the nasal and sinus mucosa because of altered ventilation of the nasal cavity [2,4]. Generally, the cause is due to trauma either during intra-uterine life or accidental [3]. Almost 75-85% of population in world have a mild form of deformity in nose anatomy and in most cases, it is asymptomatic. But those who have moderate and severe deviated septum, they can show symptoms in form of nasal obstruction like obstructed breathing, nasal discharge, facial pain, migraine and altered smell [4,18]. This can lead to other serious conditions like sleep aponea, and tinnitus. Nasal obstruction frequently has been associated with sleep-disordered breathing as a potential etiologic factor [5,19].

In 2011, a study found that 85-88% of the cases of deviated nasal septum occurred in males and only 10-12% in females [5]. According to literature, most of these incidents are found in patients aged between 20-40 years, while in another study, they found a low correlation between the age and the type of septum deviation [2,4]. Various reasons have been attributed to occurrence of deviated nasal septum with 72% of these caused by trauma and 24% caused by trauma at birth [2]. The higher incidence rate in men is largely due to trauma that often occurs in men. The other factors include racial factors and congenital deformities of septum [5].

The septum deviation is diagnosed basically on patient's clinical symptoms and physical examination or during other investigations such as, PNS X-ray and CT-Scan [6]. DNS was reported in approximately 30-43% of the population, without nasal obstruction on routine PNS x-ray posing no symptoms. However, among patients complaining of nasal obstruction, 30-35% have DNS [7]. The treatment of septum deviation is based on the complaints and complications and can be managed by local inhalers and medications but some complicated cases require a corrective surgery to correct the deviation for improving the nasal obstruction as well as for aesthetic purposes. Septoplasty is one of the most frequent surgical interventions that is performed by Otorhinolaryngologists [7,8].

In medical management, prolonged usage of antihistamines and nasal sprays are not recommended as they cause unnecessary side effects like drowsiness, epistaxis, drying. In some, the symptoms usually reappear after the withdrawal of medication [8]. The surgical approach too failed to achieve desired results and 8% cases showed recurrence of deformity in the follow up period is very common along with limitations, merits, and demerits like, rhinitis, severe bleeding, septal perforation, septal haematoma, septal abscess etc [9]. For fear of surgery and increase in cases of relapse in symptoms, many patients have started opting for CAM's and old traditional methods like Ayurveda and kerela massage methods [10].

Siddha Vaidya; which is an ancient and old therapy popular in Southern India, has proved to be significantly relieving symptoms and reducing recurrent attacks. In Siddha literature, Mookadaipu which is also known as Peenisam or neerkovai bears a resemblance to clinical symptoms of Modern medicine Nasal blockage caused by deviated nasal structure. It is a combination of sinusitis and rhinitis (Rhino sinusitis) where symptoms were considered the same [11].

The other symptoms closely resemble the symptoms of *vazhi, azhal, Iyam* and *neer*. In siddha, *Vazhi* refers to sneezing, irritation in nose, running nose; *Azhal* refers to nasal blockage due to curve, inflammation in nasal mucosa; *Iyam* resembles irritating pain in nose, expulsion of mucous, bleeding from nose due to mass formation on either septum and *Neer* means stuffiness, watery discharge from nose [12].

Mechanism of Siddha:

In Siddha, the symptoms are reduced by technique Nasiyam which stimulates the Varmam points. As per Siddha thought, administration and fumigation in nose instigates *Ajna Chakra, a Varmam point* which activates body's internal healing mechanism. The process involves facial quivering, herbal steam and oil application deep into the nostrils [12]. It kills microorganism which causes sinusitis and cleans the blocked sinuses, finally reduce the inflammation in the sinuses [13]. The hand manipulation works on correction of deviated septum and surgeries can be avoided for Sinusitis, DNS with this simple manipulation [14].

The aim of our study was to determine the incidence of DNS with respect to age, gender, type of septal deviation, presenting symptoms and to highlight if traditional Siddha therapy can prove to be another treatment modality in such cases by reducing the present symptoms and correction of nasal structure without intervention of conventional surgery.

Materials and Methods

The study included 60 patients with DNS and variable degree of nasal obstruction who came to ChakraSiddh center, Hyderabad for consultation from January 2023 to June 2023 with a follow-up after 6 months to see the improvement symptomatically. In our study we had included two groups of patients of 30 each; Gp I(Intervention) consists of patients who underwent complete siddha therapy. Gp II(Control) consists of patients who went with medical management and little facial massage. 8 out of these 30 Gp II cases already had DNS surgery in some point of time but they had relapse of symptoms. The criterion to include these 8 post surgery patients in Gp II was due to hesitance of patients and less pressure application in treatment [15].

Sampling Size: 60

Study Design: Prospective observational study

Inclusion Criteria [16]**:**

1. Age: > 18 years
2. Septal deviation consistent with presenting symptom of chronic nasal obstruction
3. Symptoms lasting at least 3 months
4. Persistent symptoms after 4-week trial of medical management including either topical nasal steroids, topical or oral decongestants or an oral antihistamine/decongestant combination
5. Exclusion Criteria: (only for intervention gp)
6. Diagnosed malignancy like sinonasal
7. Any Radiation therapy to head and neck
8. Septoplasty performed with concurrent sinus surgery, rhinoplasty or sleep apnea surgery
9. Septoplasty performed as access to other sites.

Study included patients between 20-50 years. A thorough clinical examination and diagnostic PNS x-ray or CT scan is done to evaluate the nasal cavity and nasal septum in all the patients. Each patient was subjected to SNOT-22 Questionnaire pre and post treatment [17]. Because of many of the questions in the SNOT-22, we conducted hypothesis tests related to determine which questions provided uniquely/independently predictive information about post-therapy improvement. For these analyses, we took symptoms which were common to all patients and were main concerns of patients like nasal related issues and quality of life and were designated under these 4 variables: sleep, nasal, facial pain, and emotional symptoms [15].

Complete history taking, history of obstruction, any previous nasal surgeries along with external nose examination, the type of deviation was evaluated according to side of deviation. The follow-up period ranged from 4-6 months (mean= 5 months) to evaluate the functional and aesthetic outcomes of the performed therapy [16,18].

Data Analysis

Data analysis utilized Cronbach's Alpha to assess reliability and statistical significance was determined using means, standard deviations (SD), and P-values less than 0.05.

Results

The study included a sample for a total number of 60 out of 250 screened patients. Majority (42.18%) patients were of age group 20-30 years [15] out of which 56% were males. The male to female ratio was found to be 2.6:1. (Table 1) which is already in agreement with study done by Ranjan [16]. Left side deviation (53.28%) was found more in both Gp I and Gp II followed by 37.82% of the cases having deviation to the right and 9.70% presented with bilateral deviation. (Table 2).

Commonest presenting complaint was Nasal obstruction (98.3%) with sleep apnoea (43%) associated with it in both patient Group (Table 3). In the present study, other commonest complaints were: 48 patients had headache, Nasal discharge was seen in 29 patients, 25 patients had sleep apnoea and Hyposmia was present in 16 patients. Post treatment, a significant relief of symptoms were observed in 92.3% in Gp I and 61.3% in Gp II (Table 4). The difference between the two groups (control and intervention) was statistically significant considering parameters like nasal obstruction, nasal discharge, sleep apnea and hyposmia. Data was analyzed using chi-square test to test for statistical significance of the findings. Significant improvement was observed in nasal obstruction (91.13%) and sleep apnea (86.8%) in Gp I patients ($p<0.05$) which shows statistical significance in favor of Siddha therapy. Dependency on medications reduced by 89.4% in Gap I while in Gap II only 43.9% showed a little improvement in this aspect. Post-treatment nasal correction was achieved in Gap I (63%) to patient's satisfaction level as compared to Gap II (35.23%).

Following the therapy, statistically significant improvement was observed in the entire patient population with respect to clinical outcome measures: Nasal obstruction ($p<0.05$), headache ($p<0.05$), Nasal discharge ($p<0.05$), sleep apnea ($p< 0.05$) and hyposmia ($p < 0.05$). Thus, it shows that following siddha therapy, patients improved significantly and SNOT-22 score was reduced. (Low score indicates better relief of symptoms). Recurrence of deformity was not found in the follow up period unlike that reported in literature where recurrence was found in upto 8% of cases [3]. However, improvement in headache ($p=0.4003$), epistaxis ($p=0.6436$) and mouth breathing ($p=0.4574$) did not show significant variation between siddha or medical management.

Bio-demographic Data		No. Of patients (n=60)	Percentage (%)
Age (in years)	< 20 yrs	08	13.3
	20-30 yrs	25	42.18
	30-40 yrs	16	26.6
	>40 yrs	11	18,3
Gender	Male	37 (E=21; C=16) *	61.6
	Female	23 (E=9; C=14) *	38.4

*E= (Gap I) Experimental gp; C= (Gap II) Control gap

Table 1: Bio-demographic data of patients with DNS in Chakra Siddh center

Side of Septal Deviation	No. Of patients (n=60)	Percentage (%)
Left	33	53.2
Right	23	37.8
Bilateral	4	9.7

Table 2: Distribution of patients according to septal deviation

Symptoms	No. Of patients (n=60) *	Percentage (%)
Nasal obstruction	58	96.3
Nasal discharge	29	41
Loss of smell	16	21.2
Sleep apnoea	29	43
Headache	22	35
Mouth breathing	05	9.3
Snoring	06	11.2
Nasal bleeding (epistaxis)	03	4
Medicine dependency	58	97
Nasal deviation/deformity	60	100

* A patient might have multiple presenting symptoms so the total number may vary

Table 3: Distribution of patients according to symptoms presentation (SNOT-22 with significant results)

Complaints	Gap I (n=30) Pre Rx-Post Rx*		% of benefit	Gap II (n=30) Pre Rx-Post Rx*		% of benefit	p value** S (<0.05)
Nasal obstruction	27	4	91.1	24	16	45.2	0.0196
Nasal discharge	18	2	88.2	18	15	25	0.0326
Loss of smell (Hyposmia)	4	1	78.5	3	2	25	0.011
Sleep apnea	19	3	86.8	20	10	50	0.0231
Headache	14	05	67.7	12	09	75	NS
Mouth breathing	03	01	70.4	02	01	68	NS
Snoring	04	01	75	02	01	70	NS
Nasal bleeding (Epistaxis)	02	00	100	01	00	100	NS
Nasal deviation/ deformity	30	13	63	30	23	35.2	0.0311
Medicine dependency	30	06	89.4	30	28	15	0.0454

* No of Patients who C/O same symptom on/off with less intensity post therapy after 4-6 months

Table 4: Comparison of pre- and post-therapy SNOT-22 analysis of Gp I and Gp II patients

Discussion

In the traditional Siddha system, *Mookadaipu* which is also known as Peenisam or neerkovai bears a resemblance to clinical symptoms of Nasal blockage caused by DNS [10]. It is also stated DNS causing sinusitis in 45% of the patients so treating the symptoms of sinus can be one treatment modality for DNS [15]. The present study confers the outcome of other studies in which most frequent noted symptoms of DNS is nasal discharge (96.66%), followed by nasal congestion (93.33%), sleep disturbance (90%), head ache (90%) [16]. A study by Moorthy et al. also showed same cause of nasal obstruction as the most common symptom [19]. Shoib et al study found patients (58%) had headache as predominant symptom in cases of septum deviation and in this study 48% patients showed headache as symptom [9]. In another study by Rehman, headache, also, was a predominant symptom seen in over 80% of the cases associated with nasal blockage [18]. David.H

et.al concluded that physical correction of anatomic abnormalities of the septum and turbinate resulted in predictable improvement in outcome measures with respect to headache frequency and severity, nasal obstruction and results were statistically significant [22].

In Siddha literature, both internal and external medicines are prescribed for sinusitis and manipulation techniques to improve the nasal septum [8]. Intranasal corticosteroids, Oral corticosteroids, Antibiotics, Antihistamines and Topical decongestants are recommended for treatment of symptoms of DNS but in severe cases, Septoplasty is only options. However, chances of relapse of symptoms in both cases are high [3]. Different studies have projected that relief in symptoms generally decreases the dependency of patients on steroids like in this study [18].

In Siddha, deviated septum is treated through a technique by Nasaya to stimulate the Varmam points to activate body's internal healing mechanism. Nasiyam includes facial massage, fumigation and specific Eucalyptus oil application into the nostrils [11]. Studies shows eucalyptus oil helps to curb inflammatory issues that can lead to problems like sinusitis in the longer run. It kills the germs that are responsible for causing allergy, irritation, and nasal blockage [14].

Varmam treatment involves manipulating specific energy spots to restore vital energy and facilitate healing processes [8]. These energy spots, known as Thodu Varma, correspond to junctions of muscles, nerves, veins, arteries, and capillaries, believed to regulate bodily functions [8]. Our study by Thokkanam type of Varmam with gentle pressure strokes incorporated in nasal cavity, neck and upper back, is used to alleviate pain and promote healing internally [10].

The potential of Siddha therapy lies in its holistic approach, addressing the physical, mental, and spiritual aspects of an individual. While the conventional management of DNS primarily involves surgical or pharmacological interventions [7]. Siddha therapy offers a non-invasive alternative that aligns with the patient-centered approach, emphasizing overall well-being by improving his lifestyle [16]. The findings from this case report serve as a catalyst for exploring the efficacy of Siddha therapy in managing DNS. By addressing the underlying energy imbalances and stimulating healing through non-invasive interventions, Siddha therapy presents a promising adjunct or alternative to conventional treatments [8].

SNOT–22 scale was used to assessment of symptom severity, social and emotional impact, productivity and sleep consequences of the patient. SNOT- 22 total score 8-20 represents mild, more than 20 to 50 represents moderate and more than 50 represents severe condition [13]. Snot-22 total score decreased from 41(moderate) before treatment to 08 (mild) after completion of treatment. No recurrence of any clinical features like sneezing, nasal congestion and snoring was observed during the five months of follow-up of siddha intervention [18].

Limitation

The study is a prospective, standalone treatment research. It is an open-labelled, single-arm, non-randomized trial with minimal sample size. Hence, the study has its own limitation and further controlled studies are required. The participants were recruited to the study based on their willingness. Hence, selection bias may also be there. The study lacks evidence in the management of the disease, as there are very few siddha studies available on this topic.

Conclusion

In modern medicine, DNS can be managed by continuous use of steroids and finally a surgical correction of the nasal deviation. But in this study, ***Siddha Vaidya***, an ancient science proved that by just using hand manipulation techniques the deviated septum can be corrected and there can be significant improvement in clinical outcomes including nasal obstruction, headache, sleep apnea and nasal discharge compared to standard treatments. By simple methodology of aligning body energies (mind, body and spirit), the siddha therapy instigates internal healing mechanisms thus, resulting in cure and an improved lifestyle. ***Siddha*** therapy along with diet and physiotherapy rehabilitation played a vital role in reducing symptoms related to nasal blockages, functional independence, and quality of life in patients.

References

1. Sheen JH. St Louis, (2000). MO: CV Mosby Co. (Rhinoplasty: personal evolution and milestones. Apr;105(5):1820-1852
2. Maran AGD, Lund VJ. (1990). Trauma to nose and sinuses. In: 1st Edn.; Clinical rhinology. New York: Thieme,110-139.
3. Gray, L.P. (1978). Deviated Nasal Septum. Incidence and Etiology. Annals of Otology, Rhinology, and Laryngology, 87, 3-20.
4. Kent DT, Soose RJ. (2014). Environmental factors that can affect sleep and breathing: allergies. Clin Chest Med. Sep;35(3):589-601.
5. Ballenger JJ (2003). Anatomy and Physiology of the Nose and Paranasal Sinuses in: Ballenger's Otorhinolaryngology Head and Neck Surgery 6th ed (Hamilton: BC Decker Inc). p.547-560
6. Jin HR, Lee JY, Jung WJ (2007). New Description Method and Classification System for Septal Deviation J Rhino 14(1) 27-31
7. Mladina R, Cujic R, Subaric M, Vukovic K. (2008). Nasal septal deformed in ear, nose, and throat patents: an internatonal study. Am J ORL; 29: 75 - 82.
8. Powell NB, Zonato AI, Weaver EM, Li K, Troell R, et al. (2001). Radiofrequency treatment of turbinate hypertrophy in subjects using continuous positive airway pressure: A randomized, double blind, placebo-controlled clinical pilot trial. Laryngoscope.; 111:1783–1790.
9. Shoib SM, Viswanatha B (2016). Association between symptomatic deviated nasal septum and sinusitis: a prospective study. Res Otolaryngol 5(1): 1-8.
10. Ali A, Kahn J, Rosenberger L, Perlman AI. (2012). Development of a manualized protocol of massage therapy for clinical trials in osteoarthritis. Trials; 13:185.
11. Ashtanga Samgraha Uttara tantra 22/87, English translation by Prof. K. R. Srikantha Murthy, Vol III, 1 st edition, Chaukhambha Vishvabharati, Varanasi. (1997).
12. Susruts Samhitha, (2010). Uttara tantra 22/3-5, English translation by P V Sharma, Vol III, 1st edition, Chaukhambha Vishvabharati, Varanasi, pp 251.
13. Kuppusamy Mudaliar K.N, Mookadaipu, Siddha Maruthuvam, (1987). Tamil Nadu Siddha Maruthuva variyam:192-200.
14. Krishnamoorthy J R, Kumaravel A, Ramaswamy R S, Mariajoseph A, Thiagarajan G, et all., (2010). Siddha Medicine Vol 3 special areas, Tamil Valarachi Kalagam Madras University: 95.
15. Field TM. (1998). Massage therapy effects. Am Psychol.;53(12):1270–1281.
16. Khan MN, K Nath, Shams Uddin. (2016). A clinical study of deviated nasal septum with special reference to conventional and endoscopic septoplasty. Int J Res Med Sci. Dec;4(12):5165-5171
17. Joshua L Kennedy, Matthew A Hubbard, (2013). Sino-nasal Outcome Test (SNOT-22): A predictor of post-surgical improvement in patients with chronic sinusitis, Ann Allergy Asthma Immunol. Oct; 111(4): 246–251.
18. Craig LH, Svircev A, Haber M, Juncos JL. (2006). Controlled pilot study of the effects of Neuromuscular Therapy in patients with Parkinson's disease. Movement Disord.;21(12):2127–2133.
19. Nayak, D.R., Balakrishnan, R. and Deepak Murty, K. (2002). Produl Hazarika. Indian Journal of Otolaryngology and Head and Neck Surgery, 54, 20-24.
20. Rehman, A., Hamid, S., Ahmad, M. and Rashid, A. (2012). A Prospective Study of Nasal Septal Deformities in Kashmiri Population Attending a Tertiary Care Hospital. International Journal of Otolaryngology and Head & Neck Surgery, 1, 77-84.

21. S. Moorthy, S Kolloju, Srivalli M., Ali Behman (2014). Clinical Study on Deviated Nasal Septum and Its Associated Pathology.Int J Otolaryngology Head Neck Surg;3:75-81.

22. Harley DH, Powitzky ES, Duncavage J. (2003). Clinical Outcomes for the Surgical Treatment of Sinonasal Headache. Otolaryngology–Head and Neck Surgery;129(3):217-221.

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