



A COMPARATIVE STUDY OF AYURVEDIC MEDICINE AND CONVENTIONAL MEDICINE IN KARAD CITY

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Abstract-Sinusitis is defined as an inflammatory process involving the mucous membranes of the paranasal sinuses and / or the underlying bone. Chronic sinusitis is the inflammation of the mucosa of the nose and paranasal sinuses that lasts for at least 12 consecutive weeks. According to Ayurveda, the most important causes of chronic sinusitis in India include pollution and adulteration of dietary foods. In order to treat this condition. A patient satisfaction survey was designed comprising of nineteen questions to evaluate patient satisfaction.

Key words:- Sinusitis, paranasal, chronic

I. INTRODUCTION

Chronic sinusitis is one of the most common diseases in the United States. An estimated 14% of the population is affected by this disease, which results in annual health care expenditure of approximately 85.8 billion Chrome sinusitis is also very common in India. Due the increasing population and Sinusitis is defined as an inflammatory process involving the mucous membranes of the paranasal sinuses and / or the underlying bone. Chronic sinusitis pollution, the incidence of this is increasing in India. is the inflammation of the mucosa of the nose and paranasal sinuses that lasts for at least 12 consecutive weeks. The aim of treating chronic sinusitis is to drain the sinuses and eradicate any infecting pathogens. Data supporting the efficacy of treatment methods are not readily available. Certain studies suggest the use of antibiotics depending on severity of the illness or resistance to antibiotics. Although, oral & nasal decongestants may be useful in causing sinus drainage, studies evaluating their effectiveness in treatment of chronic sinusitis have not been evaluated. Generally, patients who have undergone more than three courses of antibiotics within a twelve-month period without relief, may undergo endoscopic sinus surgery to drain the fluid trapped in the sinuses. According to Ayurvedic physicians, chronic sinusitis can be successfully treated using other forms of medicine including Ayurveda.

II. BACKGROUND ON AYURVEDA:

In India, both Ayurvedic medicine and convectional medicine are present side by side. Ayurvedic physicians undergo four years of education following twelfth grade. The curriculum also includes many components of conventional medicine. Ayurveda is the traditional form of Indian medicine that its origins in the Vedas, which are the sacred texts of the Hindu religion. "Ayur" means life and "veda" means knowledge or science. Ayurveda addresses the etiology, pathogenesis, clinical manifestations, treatments, and dietary considerations for different disease conditions

with an emphasis on maintaining a healthy through lifestyle modifications. According to the principles of Ayurveda. All objects in the universe and the bodies of living creatures are composed of five basic elements (panchmahabhootas); earth, wind, fire, water, and space. In addition, three biological elements (doshas) that constitute the structural and functional units of cells, tissues, organs, and the body as a whole, They are Vat, Pitta, and Kaph. They originate from the panchmahabhootas and when abnormal cause aging and disease. The body is also composed of seven tissues (hiatus). They are Rasa (Plasma), Karta (Blood), Mamas (Muscle), Media (Fatty tissue), Asthi (Bones), Majja (Bone marrow & nervous tissue), and Shark (reproductive tissues). All these components determine one's constitution (prakruti) which is determined at birth and stays constant throughout life. Any deviation from this constitution causes disease. The goal of Ayurvedic treatment is to restore a person's constitution to his/her normal state.

Ayurveda considers each person separately since each person has a unique constitution, which indicates his/her disease proneness. Diagnosing a disease by a certain name is not important. The key to diagnosis and treatment is understanding the abnormality at the level of doshas, dhatus, and waste products. Also Ayurveda suggests that every disease has its origin in stomach or in G. I. tract and can be treated by altering eating habits in addition to medications and other lifestyle modifications. In the initial stages of dosha aggravation (disease) treatment is by Shaman- alleviation of doshas. In later stages. Treatment is by Shodhan – elimination of aggravated doshas from body. The aggravated doshas can be eliminated by five procedures known as Panchkarma. They are, Vaman (Emesis/Vomiting), Virechana (Purgation), Basti (Enema), Nasy (Nasal administration of medicine), and Raktamokshana (Blood letting). In addition, as mentioned previously, dietary and lifestyle modifications are equally important as is avoiding the causative factors. Thus, the theoretical strudel and basis

for disease and treatment in Ayurveda is dramatically different than Western biomedicine.

According to Ayurveda, the most important causes of chronic sinusitis in India include pollution and adulteration of dietary foods. In order to treat this condition. Dr. Milind Pendharkar uses a combination of Shaman chikitsa. For Shodhan he uses Nasya, while for Shamam he uses Sookshma Triphala tablets. He administers Nasya for a minimum of 5 consecutive days. First he massages the frontal and maxillary sinuses and the nose using sesame oil (known as Snehan) followed by applying heat to those areas using an electric pad (known as Swedan). Both Snehan and Swedan accelerate the process and effectiveness of Nasya. As a part of Nasya, 2-4 drops of Panchendriya Vardhanoil are dropped in each nostril of the patient. Dr. Pendharkar also advises patients to perform Bhasrika, a type of breathing exercise, both during Nasya and after treatment to prevent relapse.

III. OBJECTIVE

The aim of this study is to conduct a survey comparing patient satisfaction with treatment for chronic sinusitis in Ayurvedic medicine to that in conventional medicine.

IV. MATERIALS AND METHODS:

A patient satisfaction survey was designed comprising of nineteen questions to evaluate patient satisfaction. An additional five questions were included to identify the effect of factors such as age, gender, education, negative experience with the other form of medicine, and family use of one form of medicine on patient satisfaction. The survey instrument was adapted from one used by Drs. Dansk, Brannon, and Wangness and was validated by Dr. Dellasega. Surveys were administered to patients in Dr. Milind pendharkar's Ayurvedic clinic and in Dr. Mohan Kantak's and Dr. Rajesh Karanbelkar's otolaryngology clinic in Karad, India. These patients were selected by the respective physicians, since they had been diagnosed and received treatment for chronic sinusitis. A total of 101 patients were surveyed in the Ayurvedic clinic, while 54 were surveyed in the conventional medicine clinic.

V. RESULTS

A chi square analysis was done on each question in the survey comparing the responses of patients in the Ayurvedic group to those in the conventional medicine group. The results of the analysis are provided in Table 1. With regard to the first appointment being scheduled at time convenient for the patient the two groups did not show a statistically significant difference. There was no statistically significant difference in the two groups' perception of being treated with dignity and respect. In response to whether the procedures being performed were appropriately explained. The patients in the Ayurvedic group were more likely to feel that the explanation was adequate than those in the conventional

medicine group. There was no statistically significant difference between the two groups with regards to them being adequately updated on their progress. Both groups did not show any statistically significant difference in whether they were helped to feel less nervous about their medical questions. There was no statistically significant difference between the groups about their perception of whether medical instructions were clearly explained to them

and whether their condition was explained to them in terms that they could understand. Both groups did not show a statistically significant difference between themselves regarding being given enough time with the physician. Patients in the Ayurvedic group felt they were given clear instruction about how to care for themselves more so than those in the conventional medicine group. There was no statistically significant difference in the two groups regarding whether their condition was communicated effectively to their family. With regards to overall satisfaction with treatment there was statistically significant difference with the Ayurvedic group tending to be more satisfied than the conventional medicine group.

Patients in the Ayurvedic medicine group were not only more willing to use that treatment again than the conventional medicine group, but also more likely to recommend it to family and friends. There was a statistically significant difference between the groups in patients' own perception of feeling better after receiving treatment. With the Ayurvedic group being more likely to report better pain management. Patients in the Ayurvedic group felt that their cultural needs and requests were more more addressed than the conventional medicine group. Overall there was a statistically significant difference in the two groups regarding the patients satisfaction of the quality of the treatment they received with the Ayurvedic group reporting a higher satisfaction.

A chi square analysis was also done to determine the effect the confounding variables on patient satisfaction. The analysis showed that age, gender, and family use did not have a statistically significant effect on patient satisfaction. Although the two groups differed on negative experience with the other form of medicine and education level. This factors did not correlate with patient satisfaction in those groups. In the Ayurvedic group, 86 patients reported a negative experience with conventional medicine. Of the remaining 15 patients in this group, 14 had never tried conventional treatment for chronic sinusitis, while 1 patient did not report any negative experience after taking the conventional treatment. In the conventional medicine group, 10 patients noted a negative experience. Of these patients, 7 reported the negative experience as being no symptomatic relief, while 3 patients noted in exacerbation in symptoms. Of the remaining 44 patients in the group, 41 had never tried Ayurvedic treatment for chronic sinusitis, while the 3 patients that did noted significant improvement in condition

Table 1.

	Chi-square	Probability
Q 1 : First visit at	5.102	0.1645
Q 2 : Treated with dignity &	2.121	0.1453
Q 3 : Procedures adequately	10.202	0.0169
Q 4 : Was updated on	8.640	0.0345
Q 5 : Helped to feel less	4.944	0.0844
Q 6 : Medical instructions	0.1960	0.6583
Q 7 : Condition explained in	2.961	0.3976
Q 8 : Enough time with	6.438	0.0400
Q 9 : Given clear	15.548	0.0014
Q 10 : Effective	4.537	0.2090
Q 11 : Satisfaction with	47.392	<0.001
Q 12 : Use treatment again	22.534	0.0002
Q 13 : Recommend	15.391	0.0015
Q 14 : Feel better cared for	11.998	0.0074
Q 15 : Treatment helped	24.987	0.0001
Q 16 : Quicker recovery	35.744	<0.0001
Q 17 : Satisfied with pain	17.699	0.0005
Q 18 : Addressed special	16.464	0.0009
Q 19 : Satisfaction with	47.392	<0.0001

Table 1 continued

	Chi-square value	Probability
Effect of Age	5.998	0.3074
Effect of Gender	0.816	0.3664
Effect of Education	14.743	0.0115
Effect of Negative Experience	69.343	<0.0001
Effect of Family Use	0.104	0.7467

Table 2. Distribution for Ayurvedic medicine group by question

Level	Count
-2	0
-1	0
0	1
1	2
2	98

VI. DISCUSSION

The results show that overall the Ayurvedic group showed a higher level of patient satisfaction than the conventional medicine group. Parts of the reason for this finding could be that according to Dr. Milind Pendharkar, Ayurvedic medicine has provided patients with permanent relief from symptoms of chronic sinusitis. On the other hand, treatment of chronic sinusitis in the conventional medicine requires ongoing therapy with multiple courses of antibiotics and possible surgery. Many patients reported experiencing symptoms post-surgery. Patients in the Ayurvedic group also reported better pain management, consideration of special cultural needs, quicker resolution of symptoms, and personal feeling of well being. This may have contributed to the higher satisfaction the Ayurvedic group. The Ayurvedic group also felt that the procedures being performed were more adequately explained and that they were given clear instructions on how to care for them. This may have contributed to an overall increased satisfaction in the Ayurvedic group. It was interesting to note that age, education, sex, family use, and prior negative experience with the other form of medicine did not affect satisfaction.

There are limitations to the results discussed above. The patients were self selected for that form of treatment, and Ayurveda is specifically an Indian cultural practice. This alone may account for some of the higher patient satisfaction ratings in the Ayurvedic clinic. Random assignment would be necessary to overcome this limitation. Many questions in the survey had only a few of the possible five responses circled. Due to this skewed distribution, the results of the chi square statistic may not be fully accurate. Also the patients surveyed were limited to one Ayurvedic medicine clinic and one otolaryngology clinic in Karad. This limited population may affect the power of the study. Additionally, unlike conventional medicine, Ayurvedic medicine is very individualized and differs from one Ayurvedic physician to another, and from one patient to another. Thus, it is difficult to make a generalized conclusion about Ayurvedic medicine from this limited study. Another limitation is that the diagnosis of chronic sinusitis was made by the physicians and was taken at face value. Some of the patients that were surveyed may have had components of allergic rhinitis along with chronic sinusitis.

VII. CONCLUSIONS:

Despite the limitations mentioned previously, this study done as an initial pilot, demonstrated that in the two clinics studied, Ayurvedic medicine has a higher patient satisfaction than conventional medicine in the treating chronic sinusitis. The next step would be to conduct a similar survey on a larger scale including multiple Ayurvedic and otolaryngology clinics throughout India. It would also be necessary to set strict diagnostic inclusion criteria. Also the Ayurvedic treatment administered to all the patients would have to be standardized in all the clinics. However, it is clear from this study and in conversation with patients who have undergone Ayurvedic treatment for chronic sinusitis, that they have experienced lasting positive results from this treatment.