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DEMOGRAPHIC STUDY OF SINUSITIS IN PATIENTS VISITING GOVT. UNANI HOSPITAL SRINAGAR AND AYUSH CENTRES IN KASHMIR

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SUMMARY: Sinusitis is the symptomatic inflammation of the paranasal sinuses, which may be due to infection, allergy or autoimmune causes. It usually occurs due to a viral infection and resolve over the course of 10 days. It is a common disease affecting more than 24 million people annually. Its prevalence is escalating in different geographical locations of the world, especially in cold regions. The best way to prevent sinusitis is to educate the people about risk factors and preventive strategies. The present study was planned with an objective to know the prevalence of sinusitis and to determine the ratio of diseases in respect of Mizaj (Temperament) of the patients attending Govt. Unani Hospital Srinagar and AYUSH Centres in Kashmir. The study was an observational multi-centric cross-sectional hospital based survey. A total of 11514 patients of any age group and sex, attending the out-patients departments of these centres, irrespective of the treatment seeking for were screened after obtaining approval from Institutional Ethical Committee. A pre-tested semi-structured questionnaire which was based on the demographic profile and risk factors of sinusitis was administered to collect the relevant data. The results showed that overall prevalence of sinusitis was 1.11%. The mean age of patients was 34 years and 70% of patients were suffering from chronic maxillary sinusitis. The study revealed that 20% of patients have positive family history of sinusitis. The history of allergy and cold exposure was found in 30 % of patients. The prevalence was highest in patients having Balgami (phlegmatic) temperament. It can be concluded that by knowing ones temperament, the risk for developing sinusitis can be predicted and preventive strategies may be adopted at individual and mass levels.

Key words: Sinusitis, Prevalence, Risk Factors, Mizaj, Unani Medicine.

INTRODUCTION

Sinusitis is the symptomatic inflammation of the paranasal sinuses, which may be due to infection, allergy or autoimmune issues. It usually occurs due to a viral infection and resolve over the course of 10 days (1). It is a common disease affecting more than 24 million people annually. Acute sinusitis is usually precipitated by an earlier upper respiratory tract infection, generally of viral origin which lasts for 7 to 10 days, whereas bacterial sinusitis is more persistent. Approximately 0.5% to 2% of viral sinusitis results in subsequent bacterial sinusitis. Acute episodes of sinusitis can also result from fungal invasions which are typically seen in patients with diabetes or other immune-deficient patients. Chemical irritation can also trigger sinusitis, commonly from cigarette smoke and chlorine fumes (2-4).

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Chronic sinusitis lasts longer than three months and can be caused by many different diseases that share chronic inflammation of the sinuses as a common symptom. Symptoms of chronic sinusitis may include nasal congestion, facial pain, headache, night-time coughing, thick green or yellow discharge, feeling of facial fullness or tightness, dizziness, aching teeth, and/or halitosis (3-4). Unless complications occur, fever is not a feature of chronic sinusitis. Often chronic sinusitis can lead to anosmia. In a small number of cases, acute or chronic maxillary sinusitis is associated with a dental infection. According to the presence or absence of polyps, chronic sinusitis is subdivided into cases with polyps and cases without polyps. When polyps are present, the condition is called chronic hyperplastic sinusitis; however its causes are poorly understood and may include allergy, environmental factors such as dust or pollution, bacterial infection, or fungus. Non-allergic factors such as vasomotor rhinitis can also cause chronic sinus problems (5-6). Abnormally narrow sinus passages such as deviated nasal septum can impede drainage from the sinus cavities and be a contributing factor. According to the severity of disease, sinusitis can be classified by the sinus cavity which it affects: Maxillary, Frontal, Ethmoidal , Sphenoidal sinusitis (7-9).

In Unani system of medicine, it can be termed as Iltehab Tajaweefe Anaf and can be Haad (acute) or Muzmin (chronic) according to duration of illness and Haar (hot) and Baarid (cold) according to predominant humour (10-11). It is a major health care problem that affects a large population mainly of lower age group. In the wake of unconvincing scenario of treatment coupled with obnoxious side effects in contemporary medicine, Unani system of medicine offers a very effective treatment for this disease based on its holistic approach. In this system of medicine, various regimes of regimental therapy are used for primary and secondary prevention of sinusitis along with evaluation of mizaj (Temperament) of a person. Mizaj is one of the fundamental concepts of Unani medicine and serves as a primary tool for diagnostic and therapeutic purposes. Determination of mizaj is an important tool for prophylaxis of sinusitis. Screening is one of the procedures by which disease can be diagnosed in its early stage and the possible steps can be adopted in time to reduce the morbidity and mortality e.g. Blood Pressure for hypertension and Pap smear for cancer of cervix are two example of how screening helps in combating the fatal outcomes of diseases. Keeping in view the above potential of sinusitis, the present study entitled “Demographic Study of Sinusitis in Patients Visiting Govt. Unani Hospital Srinagar and AYUSH Centres in Kashmir” is designed. The objective of the study was to evaluate the prevalence rate of Sinusitis and to determine the ratio of diseases in respect of Mizaj of the patients attending Govt. Unani Hospital/AYUSH Cenres in Kashmir, irrespective of the treatment, patient seeking for.

MATERIALS AND METHODS

The present study was an observational, cross-sectional, multi-centric study conducted in Govt. Unani Hospital Shalteng Srinagar and seven 10 beded AYUSH Centres viz. AYUSH Unit, JLNM Hospital Srinagar, AYUSH Unit SMHS Srinagar, AYUSH Unit, Distt. Hospital Anantnag, AYUSH Unit, Distt. Hospital Shopian, AYUSH Unit, Distt. Hospital Pulwama and AYUSH Unit, Distt. Hospital Kulgam of Kashmir Division. A total patients of 11514 of any age group and either sex, attending the out-patient departments of these centres, irrespective of the treatment seeking for, were screened. Sample size was calculated statistically taking the previous prevalence as reference. The duration of the study was from November 2012 to February 2013. The patients fulfilling the inclusion criteria were selected after obtaining their written inform consents. Awareness based pre-tested, semi-structured questionnaire was administered to each patient to collect the data on socio-demographic profile and the other data of relevance viz. past history, family history, history of smoking, allergy, cold exposure etc. Then final diagnosis was ascertained on the basis of subjective and objective parameters (X-Ray PNS) supported by assessment of Mizaj. Mizaj of every patient was assessed on the basis of Alamat Ajnase Ashra (10 determinants of temperament) mentioned in classical literature of Unani Medicine (12-13). The collected data and results were evaluated and presented in the form of tables and figures in accordance to the purpose of the study.

DISCUSSION

Sinusitis is a common disease with significant morbidity. No single etiological factor is responsible for this disease. Varied allergic and infective cases have been held responsible. The present study was a cross-sectional hospital based survey, embarked upon to know the prevalence of sinusitis in patients attending Govt. Unani Hospital Srinagar and AYUSH Centres in Kashmir. A total of 11514 patients irrespective of age

and sex were included in the study. Information related to demography, anthropometry, personal history, and family history history of smoking, allergy, cold exposure etc was obtained through pre-tested, semi-structured questionnaire. The demographic characteristics obtained from the study have been depicted in Table 2.

In the present study, as shown in Table 1, out of 11514 patients, only 128 (1.11%) patients were found positive (+ve) in the screening for sinusitis. The mean age of patients was 34 years and 70% of patients were suffering from chronic maxillary sinusitis. Age wise distribution of diagnosed patients revealed that out of 128 patients, 24(19%), 36(28%), 31(24%), 23(18%), 7(6.5%), 7(6.5%) patients were observed in age group of 10-20, 21-30, 31-40, 41-50, 51-60, 61-70 years respectively and no (0%) patient was above 70 years age group. The maximum percentage of +ve patients were found in age group 21-30. This higher prevalence may be because of higher number of patients in this age group. Similarly sex distribution of diagnosed patients showed that out of out of 128 patients, 65 (51%) patients were males and 63 (49%) were females. Although the disease exists in the society among all communities but no relevant prevalent studies are available to demonstrate the existence of this disease among different religious communities in the society. However the predominance of Muslim patients (95%) in present study may be absolutely due to the fact that majority of patients attending were from Muslim community which is reflected in the study. As it is evident from Table 2 that the disease is closely related with the socioeconomic status and is more prevalent in lower middle and lower classes.

It is obvious that patients with balghami and damwi mizaj were more affected by this disease. This finding supported the opinion of Ibn Sina (10), Razi (11), Tabri (12), Ismail Jurjani (13) and Azam Khan (14) as this disease is common among people having balghami and damwi temperament.

Regarding the presence of risk factors, the present study revealed that 20% of positively tested volunteers have positive family history of sinusitis. It was observed that percentage of smokers was found more in sinusitis +ve volunteers i.e. 40%. The history of allergy and cold exposure was found in 30 % of patients.

Table 1: Distribution of patients according to outcome of screening (n=11514).

Outcome of Screening	No. of Patients	Percentage
Positive cases	128	1.11%
Negative cases	11386	98.88%
Total	11514	100%

Table 2: Demographic profile of patients (n=128).

Parameter	No. of patients (N)	Percentage (%)
Age in years (Mean=34 years)	N	%
10-20	24	19
21-30	36	28
31-40	31	24
41-50	23	18
51-60	7	6.5
61-70	7	6.5
Total	128	100
Gender		
Male	65	51
Female	63	49
Family History		
Present	26	20
Absent	102	80
Socioeconomic status		
Upper	1	0.78
Upper middle	32	25
Lower middle	66	51.56
Upper lower	13	10.15
Lower	16	12.5
Type of disease		
Frontal	35	27.34
Maxillary	90	70.31
Ethmoidal	3	2.34
Sphenoidal	0	0
Mizaj (Temperament)		
Damwi (Sanguinous)	45	35.15
Balghami (Phlegmatic)	75	58.59
Safravi (Bilious)	6	4.68
Saudavi (Melancholic)	2	1.56
History of Allergy		
Present	39	30
Absent	89	70
Occupation		
Students	53	41.40
House wife	26	20
Labour	36	28.12
Employees	13	10.15

The higher incidence of sinusitis (41%) was observed in students and house wives (20%). This observation indicated that the disease is associated with occupation and students and house wives are generally exposed to cold and smoking. Around 65% patients had the disease of more than 2 years of duration. This indicates that the disease is chronic and resilient in nature and progresses slowly. This finding is in accordance with the description given by Rosenfeld RM and Bhargava KB (1,6).

CONCLUSION

This study provided important information regarding the demographic profile of sinusitis in patients attending Govt. Unani Hospital Srinagar and AYUSH Centres of Kashmir division. The overall prevalence of sinusitis was found to be 1.11%. The mean age of patients was 34 years and 70% of patients were suffering from chronic maxillary sinusitis. The study revealed that 20% of patients have positive family history of sinusitis. The history of allergy and cold exposure was found in 30 % of patients. The prevalence was highest in patients having Balgami temperament. By knowing ones temperament, the risk for developing sinusitis can be predicted and preventive strategies may be adopted at individual and mass levels. In the studied sample, maximum aspect of demographic profile of sinusitis was covered and detailed information on every aspect was obtained with maximum efforts and to the best of precise level. It can be concluded that timely and accurate surveillance of risk factors could enhance prevention and be used to monitor its effects. However, authors recommend that more advanced studies need to be carried out.

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