Awareness and Socioeconomic Parameters of Patients Suffering from Asthma - A Hospital based Study

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ABSTRACT

Introduction: Asthma is the chronic inflammatory condition of airway which is characterised by wheezing and shortness of breath. According to a study in United States, there are Approximately 15 million asthma patients who are below 18 years of age. Chronic diseases like asthma are a significant burden for the society and community. Knowledge about asthma should include information about symptoms, treatment and modes of prevention. The aim of the present study is to assess the awareness and socioeconomic parameters of patients suffering from asthma.

Material and methods: The present hospital based study consisted of 50 patients of acute severe asthma, hospitalized in the Department Of Chest Diseases and Tuberculosis, Govt. Medical College, Patiala. The patients were admitted as per the guidelines of British Thoracic Society, 1993. Demographic data was recorded and patients were arranged according to age group. Occupation of each patient was noted and the differences were analyzed. Patients were also made to answer some of questions regarding awareness about asthma. Questions regarding severity of disease, symptoms, predisposing factors and treatment were also asked. SPSS software was used for analysis.

Results: In the present study, 50 patients were included, and they comprised of 23 (46%) males and 27 (54%) females. Mean age of the males was 46.47±17.90 years and females were 38.07±11.15 years. Maximum number of cases from both the sexes 29(58%) were from the age group 31-50 years. In this study, 48% (24) patients were housewives, 14% (7) patients had government jobs, 10% (5) patients were agricultural workers/ farmers, 6%(3) patients were students. In this study 21 (42%) patients thought their asthma could be cured with treatment; though only 22% knew about the various modalities of the available treatments.

Conclusion: From the above study we can conclude that the most common age group to be affected by asthma is 31-50 years of age and it was the housewives who contributed to the maximum number of cases. There were vast majority of patients who were aware about the disease but knowledge about the triggering factors was poor.

Keywords: Asthma, Inflammatory, Symptoms, Treatment, Wheezing

INTRODUCTION

Asthma is a condition characterized by inflammation of airways and shortness of breath which worsens during night time and during exertion.[1] According to a worldwide survey, 300 million people have asthma and there are 252000 deaths from asthma.[2] The incidence and prevalence of asthma has been increasing worldwide. Both developed and developing countries are affected by the condition. It is one of the most common illnesses amongst children of industrialized nations.[3,4] Although poverty has been strongly associated with the diseased condition[5] but in case of asthma, this condition is more prevalent in children of highly affluent societies.[6,7] The reason behind the low incidence of asthma in lower socioeconomic status is the hygiene hypothesis. According to this, people of lower socioeconomic status are exposed to microbial products in their earlier stages of life which modulates their immune responses.[8,9]

According to a study in United States, there are Approximately 15 million asthma patients who are below 18 years of age.[10] The prevalence of asthma is high in various other nations like Australia[11], Oman[12], Saudi Arabia[13] and Iran.[14] Increased knowledge and awareness can help prevent the disease and control the symptoms at an early stage. Chronic diseases like asthma are a significant burden for the society and community.[15] Knowledge about asthma should include information about symptoms, treatment and modes of prevention.[16] There exists a huge gap in the management of asthma and the conditions that prevail in the society. This gap can only be bridged by various awareness programs. The aim of the present study is to assess the awareness and socioeconomic parameters of patients suffering from asthma.

MATERIAL AND METHODS

The present hospital based study consisted of 50 patients of acute severe asthma, hospitalized in the Department Of Chest Diseases and Tuberculosis, Govt. Medical College, Patiala. The patients were admitted as per the guidelines of British Thoracic Society, 1993.

A detailed history was taken and clinical examination was done. PEFR was recorded by a mini peak flow meter before and 20 minutes after a subcutaneous injection of 1 mg of Terbutaline. A suggestive history, physical examination and 20% increase in PEFR were the criteria for diagnosis of Bronchial asthma.

A detailed history and physical examination were conducted; routine blood and sputum examination were done. X-ray of the chest PA view and ECG were done.

Demographic data was recorded and patients were arranged according to age group. Occupation of each patient was noted and the differences were analyzed. Patients were also made to answer some of questions regarding awareness about asthma. Questions regarding severity of disease, symptoms, predisposing factors and treatment were also asked.

STATISTICAL ANALYSIS

All the data thus obtained was arranged in a tabulated form

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1447

Age group in years	Male		Female		Total	
	N	%age	n	%age	N	%age
10-20	1	4.35	2	7.40	3	6
21-30	3	13.04	4	14.80	7	14
31-40	6	26.08	11	40.74	17	34
41-50	4	17.39	8	29.62	12	24
51-60	6	26.08	2	7.40	8	16
>60	3	13.04	-	-	3	6
Total	23	100	27	100	50	100
Table-1: Showing age and sex wise distribution of patients						

Occupation	No. of patients	%Age
Farm worker	5	10
House wife	24	48
Student	3	6
Govt. Job	7	14
Business	1	2
Others	10	20
Total	50	100
Table-2: Showing occupation of the patients		

	No	%age
Ability to judge the severity of the disease	14	28
Ability to judge poor response to treatment	14	28
Ability to judge bad prognostic signs	8	16
Knowledge about various treatments avaliable	11	22
Knowledge about various triggers of asthma	30	60
Knowledge about the curability of the disease	21	42
Table-3: Knowledge and Awareness about asthma in patients		

Table 3 shows the knowledge and awareness about asthma amongst the patients.In this study 21 (42%) patients thought their asthma could be cured with treatment; though only 22% knew about the various modalities of the available treatments. 14(28%) patients could not judge the severity of the disease or the response of the disease to the treatment; while 8(16%) patients could tell the bad prognostic signs. However, a good 30(60%) patients had knowledge about the triggers of their actions.

DISCUSSION

There has been various evidences to show that educating the patient regarding asthma resulted in improve in the outcome of disease.[17,18] The main aim of the study is to reduce the mortality associated with asthma and to improve the quality of life. Education about asthma can be delivered through various modes like at hospitals, clinics, community based programs or emergency department. In our study we opted for patient education. In this patients are made to understand the pathophysiology, the predisposing of factors, the treatment protocol and various other factors related to disease management. In study conducted by Talieha et al[19] amongst school teachers, to assess their knowledge about asthma, they concluded that there were 68.4% of the teachers who knew that asthmatic attacks could be controlled by inhalers. There were 69.4% of the teachers who had an idea that passive smoking acts as predisposing factor for asthma. According to our study 60% of the patient knew about the various triggers of asthma. There was only 22% of patient population who had idea about various treatment strategies available for asthma. In a similar study conducted by Ones et al[20] in 2006, amongst school teachers, they concluded that 97% of the school teachers of turkey had knowledge and awareness about asthma.

According to our study female population was more frequently affected by asthma compared to males. The most common age group to be affected was 31-40 years of age. According to a study by Balzan[21], both the scenes were equally involved. The first age peak of admission was at 20-24 years of age and second peak was at 55-59 years of age. According to a study by Talieha et al[19], 50% of population thought that it was a communicable disease. These are various evidences to support the fact that education affects the awareness and knowledge about asthma. In a study conducted by A.Mielek et al[22], there was no association between the socioeconomic status and prevalence asthma but the severity of asthma varied with the socioeconomic status. In a study conducted by E.Duran et al[23], the prevalence of wheezing was more common in children who belonged to lower socioeconomic status than higher class.

and SPSS software was used for analysis. Various test for significance like chi square test, unpaired t test were applied. P value of less than 0.05 was considered significant.

RESULT

In the present study, 50 patients were included, and they comprised of 23 (46%) males and 27 (54%) females. Mean age of the males was 46.47±17.90 years and females were 38.07 ± 11.15 years.

Table 1 shows the age wise distribution of patients with asthma. The youngest patient was 10 years and oldest was 70 years. The combined mean age of the patient was 41.14±13.55. Maximum number of cases from both the sexes 29(58%) were from the age group 31-50 years. There were 10 (20%) males and 29 (38%) females in this age group. 10 (43.47%) only of 23 males and 19 (70%) out of 27 females were from this age group. In the higher age group of more than 50 years of age male preponderance was observed. Out of total of 11 cases in this group 9 (81.8%) were males and only 2 (18.18%) were females. 9 (39%) out of 23 males were of the age 51 years or more whereas only 2 (8.63%) were females.

Table 2 shows the occupation of patients with asthma. In this study, 48% (24) patients were housewives, 14% (7) patients had government jobs, 10% (5) patients were agricultural workers/farmers, 6%(3) patients were students. While 20% (10) patients belonged to other professions. On applying chi square test significant differences were found in the number of housewives and farm workers, housewives and students and housewives versus others. P value in all these cases was less than 0.05.

1448

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Our study is associated with few limitations. The foremost being the small sample size of the study. Because of smaller size accurate comparison could not be made. The second being that the knowledge and awareness of only patient's asthma was assessed. To enhance the awareness of asthma, the general population should also be taken into consideration.

CONCLUSION

From the above study we can conclude that the most common age group to be affected by asthma is 31-50 years of age and it was the housewives who contributed to the maximum number of cases. There were vast majority of patients who were aware about the disease but knowledge about the triggering factors was poor.

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1449