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RESEARCH ARTICLE

A CROSS-SECTIONAL STUDY OF KNOWLEDGE, ATTITUDE, AND ASTHMA PRACTICES AMONG PATIENTS SUFFERING FROM ASTHMA

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ABSTRACT

Background: Asthma is a clinically significant chronic noncommunicable disease. It causes significant morbidity worldwide among children and adults. Asthma is estimated to have affected 262 million people in 2019. Right practices, a positive attitude, and sufficient knowledge are crucial for the prevention of the progression of asthma and its exacerbation. Most studies have shown that a lack of knowledge and a negative attitude about the disease hinders treatment. Hence this study was taken to assess the above among our patients.
Material and Methodology: The study was observational, descriptive, and cross-sectional in nature. Patients who were diagnosed to have asthma aged more than 18 years were taken for the study. The source of data was the outpatient department of the tertiary care center. Informed consent was taken.
The patients were then handed questionnaires pertaining to the study. The questionnaire was explained to them in their own language.
Results: 61 patients suffering from asthma were included 72.1% of patients knew about wheezing associated with asthma. 32.8% were not able to assess the worsening of the disease. 70 % were not aware of the possible use of a peak flow meter at home for self-monitoring .73% agreed that the best way to treat asthma is by inhalational medication 45% were not aware of reliever medications.
Conclusion: One study found that there is an overall improvement in patient understanding of asthma symptoms. The study showed a significant lack in knowledge of patients regarding a basic understanding of the disease, home monitoring, and the concept of inhaler medications in therapy which needs to be emphasized during counseling.

KEYWORDS: Attitude, Asthma, Practice, Knowledge.

INTRODUCTION

Asthma is a clinically significant chronic noncommunicable disease. It causes significant morbidity worldwide among children and adults[1]. Asthma is estimated to have affected 262 million people in 2019. Among them 460 thousand deaths were reported[2]. Though initially considered to be a problem in developed countries, it is now posing major challenges in developing countries too. Disease management is further complicated in developing countries by limited medical services, expensive medications, and lack of disease-related education among the population[3]. Prevention of asthma exacerbations and achieving control is a major public health challenge. Right practices, a positive attitude, and sufficient knowledge are crucial for the prevention of the progression of asthma and its exacerbation[4]. Studies have shown that the most common risk factor for poorly controlled asthma is inappropriate use of medications. Adequate management of asthma not only depends on

prescribed medications but also its correct usage, adherence, self-assessment of disease, knowledge, and attitude towards the medications[5]. Hence this study was undertaken to determine the knowledge, attitude, and practice of patients suffering from asthma towards their disease and therapy.

MATERIAL AND METHODOLOGY

The study was observational, descriptive, and cross-sectional in nature. Patients who were diagnosed to have bronchial asthma (clinically and or by spirometry) aged more than 18 years of age were taken for this study. The source of data was the outpatient department of a tertiary care centre. Informed consent was taken. Ethical clearance was obtained prior to the study.

Following informed consent, the patients were handed questionnaires pertaining to the study. The questionnaire was explained to them in the local language or the language they understand. The questionnaire had questions regarding their knowledge of asthma, attitude, and behavior towards the disease and therapy. Their response was duly recorded. The data was analysed using SPSS software. Necessary tables were drawn using the software.

RESULTS

A total of 61 patients suffering from asthma were included in the study. The results are divided into four parts. First, includes the knowledge of symptoms, Second, is the knowledge pertaining to the disease pathophysiology, third KAP regarding treatment and finally the prognosis.

TABLE 1- Showing Data on Knowledge Regarding Symptoms and Pathophysiology of Asthma

Asthma knowledge assessment question	Yes (%)	No (%)	Can't say (%)
The breathing tubes can become narrow due to swelling	31 (50.8)	12 (19.7)	18 (29.5%)
The breathing tubes can become narrow due to muscle tightening	25 (41)	15 (24.6)	21 (34.4)
The breathing tubes also become narrow due to mucous	29 (47.5)	10 (16.4)	22 (36.1)
Symptoms are wheezing or whistling sound	44 (72.1%)	10 (16.4%)	7 (11.5%)
Can change in severity	39 (63.9%)	10 (16.4%)	12 (19.7%)
More likely to occur at night or early morning	40 (65.6%)	7 (11.5%)	14 (22.9%)
Can judge severe asthma	33 (54%)	14 (23%)	14 (23%)
Severity can be tested by blowing air	29 (47.5)	15 (24.6)	17 (27.9)
Severity assessed at home using peak-flow meter	18 (29.5)	20 (32.8)	23 (37.7)
Asthma attacks can be dangerous	48 (78.7)	4 (6.6%)	9 (14.8)
Can make out asthma worsening	41 (67.2%)	6 (9.9%)	14 (22.9%)

Knowledge regarding the symptoms and disease is shown in Table 1. 72.1% of patients knew about wheezing being associated with asthma. 65% of patients knew about possible worsening of symptoms of asthma in the night or early morning. However, 36% of patients were not aware that the disease can change in severity with time, 46% were not confident of judging when asthma would be called severe and 32.8% were not able to assess the symptoms of worsening of the disease. More than 50% of patients did not understand the reason behind the disease they were suffering from (Table 1). 70% of the patients were not aware of the possible use of peak flow meter at home for self-monitoring the symptoms.

TABLE 2- Showing Data on Knowledge Regarding Treatment and Prognosis

Asthma knowledge assessment question	Yes (%)	No (%)	Can't say (%)
Can be given as tab/syrup/inhaler	47 (77)	7 (11.5)	7 (11.5)
Best way is inhalation	45 (73.8)	4 (6.6)	12 (19.7)
Asthma medicines are of two types	22 (36.1)	11(18)	28 (45.9)
Knows which is for regular use and not	29 (47.5)	10 (16.4)	22 (36.1)

Most effective are steroids	27 (44.3)	14 (23)	20 (32.7)
Steroids can be harmful but inhalers are safe	39 (63.9)	4 (6.6)	18 (29.5)
Medicines to be taken till symptoms persist	36 (59)	8 (13.1)	17 (27.9)
Medicines has to be taken till doctor advise	54 (88.5)	2 (3.3)	5 (8.2)
Can avoid factors that can increase my asthma	46 (75.4)	5 (8.2)	10 (16.4)
Can prevent by taking inhaler prior to triggering	37 (60.7)	9 (14.7)	15 (24.6)
Can prevent if I take inhaler regularly	40 (65.6)	8 (13.1)	13 (21.3)
Know how to change my medication if worsen	34 (55.7)	15 (24.6)	12 (19.7)
Asthma can be cured	27 (44.3)	15 (24.6)	19 (31.1)
Although not cured can be controlled	47 (77)	2 (3.3)	12 (19.7)

Knowledge of patients with regard to treatment of asthma and prognosis is shown in table 2. 73% patients agreed that the best way of treating asthma is by inhalational medication. However, 50% of patients were not aware that steroids are the best of way of treating asthma. 45% of patients were not aware of use of reliever medications in asthma. 77% patients felt asthma could not be cured but controlled.

DISCUSSION

Treatment of asthma faces numerous hurdles that include variation in diagnosis, criteria, communication gap between patients & health care workers, and high misconceptions and stigmas regarding the therapy[6]. Patients constantly feel the need to switch to the traditional methods of medicine rather than adhere to inhalations and other advanced medications. Multiple studies have indicated that the knowledge about asthma and its treatment is not sufficient. This includes both patients and their relatives[7].

A Study done by Prasad et al in 2015, found that only 55% of patients were informed about their disease[8]. Our study showed 72% of patients could relate their symptoms to asthma. Majority of our study patients could even judge the night worsening of symptoms. However, significant proportion of patients could not assess the severity of the disease and its progression.

Success of medical regimen for asthma depends on 3 factors a) Patients attitude towards the illness to act for the illness b) Patients attitude towards cooperation with the physician to manage the disorder c) confidence in managing the disease[9]. Our study found 73% patients agreed that the best way of treating asthma was by inhalational medication. 64% agreed that inhaled steroids are safer than oral steroids. However, study done by Gupta PP et al in 2001 had patients considering inhalational therapy to be inferior to oral therapy[10]. But there is improvement in acceptance of inhalational drugs in recent years with stress on patient education and availability of wide range of devices to suit individual patient needs[11].

A study done by Sodhi et al found that 62% of patients preferred oral medication, but 73 % were using inhalers and 71% were using them correctly[12]. Chogtu et al found that 64% of patients knew how to use inhalers correctly [13]. Another study by Franks et al in rural Australia found that 75.9 % of patients used controller medications as advised and among them, 82.5% of patients could identify their controller medications correctly[14].

The study by Leonardo et al found only 5% had knowledge of ways of prevention while in our study it was 37% were aware that taking inhalation can prevent or trigger Asthma[15]. In the same study by Leonardo et al, 66% knew that wheezing is due to tightening of the chest. In our study the numbers were lower, around 41-47.5% had knowledge that wheezing in asthma is due to the narrowing of the airways and excess mucous production.

Gajanan et al, in their study, found that 82.5% of patients knew that medicines help in reducing inflammation of air pipes, while in the current study, this knowledge was seen to be less and only about 65.6 %[16]. The current study found that 44.3% of patients had knowledge that Asthma can be cured, while in a similar study by Gaudae, only 36.4% of patients had this knowledge[17].

CONCLUSION

Our study found that there is an overall improvement in patient understanding of asthma symptoms. It also showed a greater acceptance of inhaled medications as compared to previous studies. However, the study showed a significant lack in the knowledge of patients regarding the basic understanding of the disease, home monitoring,

and the concept of controller and reliever in therapy which needs to be emphasized during counselling.

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