A short survey study in asthma patients related to misperception of the disease

Astım hastalarında yanlış algıya yönelik kısa bir anket çalışması

Disease misperception in asthma patients

Suat Konuk
Chest Diseases, Abant Izzet Baysal Univercity, Medicine Faculty, Düzce, Turkey

Öz

Amaç: Astım hastalarında iki temel yanlış algının yaygınlığını değerlendirmek. Gereç ve Yöntem: 18 yaşından büyük, astım tanısı almış ve atım ilaçları kullanan hastalar çalışmaya alındı. Hastalar yazarın ofisine muayene olmak amacıyla gelen hastalar arasından sırası ile çalışmaya alındı. Hastalara 'astım hastalığının bulaşıcı bir hastalık olup olmadığı ve astım ilaçlarının bağımlılık yapıp yapmadığı konularında sorular soruldu. Bulgular: Toplam 1003 hasta çalışmaya alındı. 'Astım bulaşıcı bir hastalıktır' ve 'Astım bulaşıcı bir hastalık değildir' yanıtını veren hastaların oranları sırası ile %15.3 ve %58.0 idi. 'Astım ilaçları bağımlılık yapar' ve 'Astım ilaçları bağımlılık yapmaz' şeklinde cevap veren hastaların oranları ise sırası ile %17.9 and %27.0 idi. Tartışma: Hastaların büyük kısmı mevcut bilimsel gerçeklere uygun cevap vermişlerse de verilen yanlış cevap oranlarının yüksek olduğunu değerlendiriyoruz.

Keywords

Astım; Bulaşıcılık; Bağımlılık Yapma; Anket

Abstract

Aim: To evaluate the extensity of two basic misperceptions in asthma patients. Material and Method: The patients over 18 years of age who had been diagnosed with asthma and using asthma drugs were enrolled in the study. The patients were consecutively selected who examined in the private office of the author. Participants have been asked whether 'asthma is a contagious disease' and whether 'asthma drugs cause addiction'. Results: A total of 1,003 patients were included in the study. The ratios of patients who declared that 'asthma is a contagious disease' or 'asthma is not a contagious disease' were 15.3% and 58.0%, respectively. The ratio of patients who declared that 'asthma drugs cause addiction' and 'asthma drugs do not cause addiction' were 17.9% and 27.0%. Discussion: Although most patients answers were in accordance with scientific facts, the ratios of misperception are thought to be high.

Keywords

Asthma; Contagious; Addiction; Misperception; Questionnaire

DOI: 10.4328/JCAM.5120 Received: 31.05.2017 Accepted: 24.06.2017 Printed: 01.12.2017 J Clin Anal Med 2017;8(suppl 4): 374-6
Corresponding Author: Suat Konuk, Chest Diseases, Abant Izzet Baysal Univercity, Medicine Faculty, Düzce, Turkey.
GSM: +905459110181 E-Mail: suatkonukk@windowslive.com

Introduction

Bronchial asthma is a chronic inflammatory disease characterized by airflow limitation that resolves spontaneously or with treatment. It is a serious global health problem that affects people of all backgrounds and ages [1,2]. It is one of the most prevalent chronic diseases worldwide and is the most common indication for hospitalization among children [1]. The 2010 Global Burden of Disease study estimates the current asthma burden to be greater than 334 million which is consistent with previous reports [3-5].

The genetic and environmental factors play a role in the development of asthma. However, all aspects of the etiopathogenesis were not understood fully until today. For this reason, the definition of asthma defines the clinical and pathologic features of the disease [6].

During routine chest diseases practice, patients often ask the author of this study whether asthma is a contagious disease and the addictive potential of asthma drugs. For this reason, the author aimed to investigate the frequency of this perception of asthma among adult patients.

Material and Method

The study was performed in the private office of the author (SK). Consecutive patients above 18-years old who were diagnosed with asthma previously and using asthma medications were included in the study. The patients were given a questionnaire consisting of demographic questions and questions about the perception of asthma disease (Table 1). The study protocol was approved by Sakarya University Medical Faculty Ethics Committee (71522473/050.01.04/192). Signed informed consent was obtained after the interviewer discussed the study details.

Statistical analyses were performed by using SPSS program. Pearson correlation test was used to compare the answers given to the questionnaire according to the gender and age groups. P values less than 0.05 were considered statistically significant.

Table 1. The questionnaire form

Demographic Questions	
Age	
Gender	Male/Female
Marital Status	Married
	Single
	Divorced
Education Level	Illiterate
	Literate
	Primary School
	High School
	University
Questions about the perception of disease	
What is the cause of asthma	Yes, asthma is a contagious disease
	No, asthma is not a contagious disease
	I do not know
Do asthma drugs cause addiction?	Yes, asthma drugs may cause addiction
	No, asthma drugs do not cause addiction
	I do not know

Results

A total of 1003 consecutive patients were included in the study (521 female and 482 male), respectively. The demographic characteristics of the patients (age, the marital and educational status) are presented in Table 2. Most of the patients (74.7%) were between 25-65 years-old. Most of the patients (74.7%) were married and graduated from the primary school (61.7%).

Table 3 shows the results of questions about the perception of the disease. More than half of the patients (58.0%) stated that 'asthma is not a contagious disease'. Again, more than half of the patients (55.1%) stated that they do not know whether asthma medications cause addiction.

Table 2. Demographic data of the participants

Parameter		n	Percentile
Age (years)	18-24	130	12.9%
	25-44	430	42.9%
	45-64	316	31.5%
	≥65	127	12.7%
Marital Status	Married	751	74.9%
	Single	121	12.1%
	Divorced	131	13.0%
Education level	Illiterate	84	8.4%
	Literate	49	4.9%
	Primary School	621	61.9%
	High School	176	17.5%
	University	73	7.3%

Table 3. Comparison of the knowledge level about the questionnaire

Is asthma infectious or microbial?			
Questions	Answers	n	%
What is the cause of asthma?	Yes, asthma is a contagious disease	153	15.3%
	No, asthma is not a contagious disease	582	58.0%
	I do not know	268	26.7%
Do asthma drugs cause addiction?	Yes, asthma drugs cause addiction	180	17.9%
	No, asthma drugs do not cause addiction	271	27.0%
	I do not know	552	55.1%

Discussion

The main physiological characteristic of asthma is airway constriction with airflow limitation [7]. Asthma is a good example of diseases in which the gene-environmental factor interaction appears. The emergence of different clinical presentations of asthma depends on the genetic structure of the person, the environmental factors causing inflammation [8], the contraction of smooth muscles, and the effect of varying rates of edema and airway reconstruction [9]. Asthma is a chronic inflammatory disease that might affect all age groups and cause serious health problems all over the world [7]. Based on standardized methods applied in children and adults, although it is thought that the global prevalence of asthma has changed in communities living in different countries of the world, it is estimated that there are 300 million asthmatic patients all over the world. The prevalence of asthma in our country varies between 5-10% in childhood and 2-6% in adults. Training programs related to asthma therapy improves the level of asthma knowledge and enhance patient compliance with treatment [6].

It is well recognized that questionnaire based definitions of asthma may not necessarily correspond to the clinical definition of asthma, and that there is no universally accepted 'gold standard' definition of asthma for use in epidemiologic studies [10]. In this study, we aimed to investigate the extensity of perception of asthma as 'a contagious disease' and 'the addictive potentials of asthma medications' in a Turkish population. We found that 15.3% of patients perceived asthma as a contagious disease. 58% of patients perceived against that thought.

The purpose of asthma therapy is to provide clinical control and maintain it. Drugs that are used in asthma treatment can be grouped as controlling drugs and symptom-relieving drugs. Controlling drugs are taken every day and for a long time, which are used to control asthma clinically due to its anti-inflammatory properties. This group consists of inhaled and systemic glucocorticosteroids, leukotriene antagonists, long-acting beta-2 agonists used in combination with inhaled glucocorticosteroids, slow releasing theophylline, chromones, and anti-IgE. Inhaled glucocorticosteroids are the most efficient controlling medicines used today[7,11]. In this study, we found that 17.9% of patients perceived asthma medications as addictive drugs. More than half of the patients (55.1%) stated that they do not know whether asthma medications may cause addiction. Only 27% of the patients reported that asthma drugs were not addictive. In a study performed in Brazil, 70% of participants thought that asthma drugs might cause addiction [7].

Misinformation and wrong opinions about asthma treatment might affect treatment compliance and control of asthma therapy, so these assessments will also determine the missing parts in the treatment. There are a variety of validated questionnaires to measure the awareness of the disease, determine the effectiveness of the program, and assess the relationship between awareness-control of asthma [6,12]. Otherwise, there would be more patients who hinder or discontinue their treatment with the misconception of the addictiveness of asthma medicines. Or, those who think that asthma is a contagious disease would hide their illness and might give up their treatment completely. For this reason, awareness caused by our questionnaire becomes more of an issue. The aim of asthma therapy is to maintain and provide clinical control [7]. It is therefore important to inform the patients not to give up their treatments with misperceptions as much as to prescribe the drugs of the patient.

Human Rights Statement: All procedures performed in this study involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards

Animal Rights Statement

Nonapplicable

Conflict of Interest Statement

The authors have no conflict of interest

Funding: None

Scientific Responsibility Statement

The authors declare that they are responsible for the article's scientific content including study design, data collection, analysis and interpretation, writing, some of the main line, or all of the preparation and scientific review of the contents and approval of the final version of the article.

References

1. Fanta CH. Asthma. The New England journal of medicine 2009; 360(10): 1002-14.
2. Zillmer LR, Gazzotti MR, Nascimento OA, Montealegre F, Fish J, Jardim JR. Gender differences in the perception of asthma and respiratory symptoms in a population sample of asthma patients in four Brazilian cities. J Bras Pneumol 2014; 40(6): 591-8.
3. Masoli M, Fabian D, Holt S, Beasley R, Global Initiative for Asthma P. The global burden of asthma: executive summary of the GINA Dissemination Committee report. Allergy 2004; 59(5): 469-78.
4. Vos T, Flaxman AD, Naghavi M, Lozano R, Michaud C, Ezzati M et al. Years lived with disability (YLDs) for 1160 sequelae of 289 diseases and injuries 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. Lancet 2012; 380(9859): 2163-96.
5. Jumbe Marsden E, Somwe SW, Chabala C, Soriano JB, Valles CP, Anchochea J. Knowledge and perceptions of asthma in Zambia: a cross-sectional survey. BMC Pulm Med 2016; 16: 33.
6. Borges MC, Ferraz E, Pontes SM, Cetlin Ade C, Caldeira RD, Silva CS et al. Development and validation of an asthma knowledge questionnaire for use in Brazil. J Bras Pneumol 2010; 36(1): 8-13.
7. Bousquet J. Global initiative for asthma (GINA) and its objectives. Clin Exp Allergy 2000; 30(1): 2-5.
8. Wang L, Gao S, Zhu W, Su J. Risk factors for persistent airflow limitation: Analysis of 306 patients with asthma. Pakistan journal of medical sciences 2014; 30(6): 1393-7.
9. Holgate ST. Pathogenesis of asthma. Clin Exp Allergy 2008; 38(6): 872-97.
10. Delclos GL, Arif AA, Aday L, Carson A, Lai D, Lusk C et al. Validation of an asthma questionnaire for use in healthcare workers. Occup Environ Med 2006; 63(3): 173-9.
11. Minas M, Dimitropoulos K, Pastaka C, Papadopoulos D, Markoulis N, Gourgoulianis KI. Global initiative for chronic obstructive lung disease for chronic obstructive pulmonary disease: GOLD opportunity for lung disorders. Prev Med 2005; 40(3): 274-7.
12. Allen RM, Jones MP. The validity and reliability of an asthma knowledge questionnaire used in the evaluation of a group asthma education self-management program for adults with asthma. J Asthma 1998; 35(7): 537-45.

How to cite this article:
Konuk S. A Short Survey Study in Asthma Patients Related to Misperception of the Disease. J Clin Anal Med 2017;8(suppl 4): 374-6.