

PSYCHIATRIC MANIFESTATION OF PATIENTS WITH BRONCHIAL ASTHMA IN MOSUL, IRAQ

Dhiher Jameel Al-Habboo¹, Khalid Omar Sultan², Zainab Najim³ & Hellme Najim⁴

¹ College of Medicine, University of Mosul, Mosul, Iraq

² Mosul Teaching Hospital, Mosul, Iraq

³ Ipswich General Hospital, Ipswich, UK

⁴ Essex University Foundation NHS Trust, UK

SUMMARY

Aims and methods: To identify risk factors and psychiatric morbidity in bronchial Asthma. Patients who consented to participate in the study, were checked for bronchial asthma. They were interviewed and their sociodemographic data were recorded, the hospital anxiety and depression was administered. Results were inputted in a computer programme and software statistical programme Minitab version 14.1 was utilised to analyse these data.

Results: It showed statistically significant correlation between age, duration of asthma and HAD score.

Implications: Psychiatric morbidity is a neglected area in the management and care of physical illnesses, especially, bronchial asthma, where patients may get very worried and scared during acute attacks when they feel that they may suffocate. Assessing and managing the psychiatric morbidity of such patients will be reflected on the outcome of the illness and improve the quality of life of such patients.

Key words: bronchial asthma - psychiatric morbidity

* * * * *

INTRODUCTION

Psychiatric morbidity is a neglected area in the management of physical illnesses in general due to many factors, including stigma and lack of knowledge. This problem is complicated and made more pronounced in bronchial asthma due to the similarities of presentation of bronchial asthma to panic attacks and sometimes the interaction between the two illnesses.

It has been noted that females are more represented in adult bronchial asthma compared to males and this also corresponds to psychiatric morbidity. This difference has been attributed by some authors to the sex differences in the use of health care (Singh 1999).

It has been found that patients with chronic diseases are in general more at risk for mental illness (Verhaak 2005). Feldman et al. found that mood and anxiety disorder were most common psychiatric diagnoses in a patient sample of 85 adult asthma patients, however, patients with or without mental disorders did not differ with regard to asthma severity (Feldman 2005).

Depression among those patients with asthma is associated with poor adherence to medication regimens, more severe asthma, and poorer disease outcome (Goldney 2003).

PATIENTS AND METHODS

Patients who were referred to the chest unit Ibsena Teaching Hospital Mosul Iraq or the Consultative Medical Centre at the College of Medicine University of Mosul for follow up during the period between 1st August 2012 to 1st of February 2013.

The inclusion criteria depended on the physician-diagnosed asthma as defined as a positive answer to both questions "Have you ever had asthma?" and "Was this confirmed by a doctor?" (Tore'n 2006). Age of asthma onset was estimated from the answer to the question: "How old were you when you had your first attack of asthma?" (Janson 2005). The age, sex, duration of the asthma and the treatment the patients on were recorded with the calculation of HAD score.

All the patients were on regular inhaled short acting corticosteroids and on need inhaled short acting β -agonist during the period of their illness.

All patients were asked whether they would like to participate in the study and patients who agreed had to sign a consent form. The author had to explain to participant the Arabic Version of the Hospital Anxiety and depressive (HAD) Scale before he/she filled it. HAD consists of fourteen question each question has four choice options and the patient was asked to select the most applicable one to his condition.

The age, sex, duration of asthma and the HAD score was recorded for each patient.

Statistical analysis: software statistical program Minitab version 14.1 was utilized to analyse these data.

RESULTS

The 100 patients who agreed to participate in the study were included. 47 men and 53 women, their ages ranging from 17-64 years (mean 39.11 \pm 10.16).

The mean of the age of the patients, duration of their illness and the HAD score as shown in table 1.

Table 1. The mean the age, duration of their illness and the HAD score in the study sample (n=100)

Parameters	Mean ± SD	Range	
		minimum	Maximum
Age (years)	39.11±10.16	17.0	64.0
Duration of asthma (years)	11.23±4.19	3.0	27.0
HAD-Score	22.89±5.30	10.0	37.0

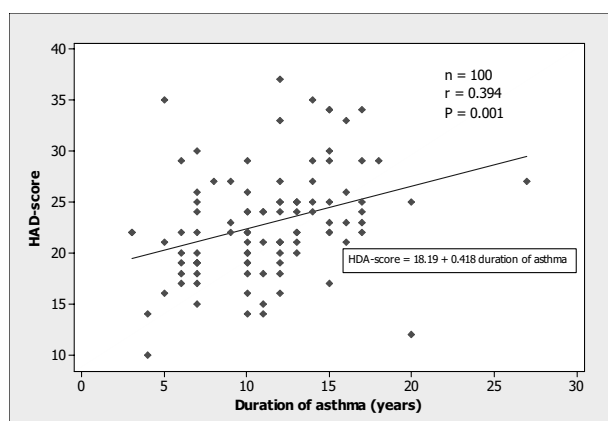
Table 2. The differences between male and female in the study sample

	Mean ± SD		P-value*	95% C.I
	Male (n=47)	Female (n=53)		
Age (years)	40.30±9.84	38.06±10.42	0.2730	-1.79; 6.28
Duration of asthma (years)	11.12±4.18	11.34±4.24	0.7830	-1.91; 1.44
HAD-Score	20.89±4.42	24.66±5.43	0.0001	1.79; 5.74

* Independent t-test for two means was used

The differences of duration of asthma and the HAD score between men and women was investigated. There was statistically significant difference between them in favour of men as indicated in table 2.

The correlation between the duration of bronchial asthma and HAD-score was studied by Pearson correlation test in all the studied sample, it was found that there was a statistically significant correlation between the duration of bronchial asthma and HAD-score, as shown in Figure 1.



Total n=100; Pearson correlation of Duration and HAD-score: r=0.394 and P-Value=0.001

Figure 1. The correlation between duration of bronchial asthma and HAD-score

The correlation between the age of patients and HAD-score was studied by Pearson correlation test in all the studied sample, it was found that there was statistically significant correlation between the age of patients and HAD-score with a Pearson correlation of Age and HAD-score (r=0.449, P-Value=0.0001).

The correlation between the duration of bronchial asthma in the 47 male, 53 female patients and HAD-score was found that there was statistically significant correlation (Pearson correlation of Duration and HAD-score: r=0.404 and P-Value=0.012) and (Pearson correlation of Duration and HAD-score: r=0.362 and P-Value=0.015) respectively.

DISCUSSION

The present study recruited marginally larger number of women compared to men. This can be interpreted by a few explanation, which may be as a result of more women are affected than men by this illness which has been shown in studies worldwide. It can also be interpreted by women are more keen to utilise facilities in the health care system or they may be more inclined to participate in activities initiated by their doctors.

This study has also indicated that women scored higher score of HAD which indicates that they have been more affected psychologically than men, which again have been found in other studies worldwide. It may be more relevant to Iraq and to Mosul area as they have been involved in more national difficulties through war and political unrest.

Duration of asthma has been found to be positively associated with HAD score in both sexes which can be explained by the fact that patients who have been afflicted by chronic illness are always threatened by its symptoms and their life is confined with constraints imposed on them through symptoms and regimens of treatment. On the other hand, It can be argued that psychosocial stressors might have played an important role in maintaining asthma and made its symptoms worse which resulted in more suffering to the patients and hence, the high HAD scores.

CONCLUSION

The interaction between mental and physical illnesses affects the course of both and the outcome improves if the psychological factors are taken into consideration. The present study has replicated previous findings about correlations between different factors and differences in sex in compliance and response to treatment. It has paved the way for more comprehensive and inclusive studies to take more related factors into consideration which hopefully improve the outcome of this illness in this troubled part of the world.

Acknowledgements: None.

Conflict of interest: None to declare.

Contribution of individual authors:

Dhaheer Jameel Al-Habboo: Data collection.

Khalid Omar Sultan; Data collection and collating the results.

Zainab Najim: Writing draft and editing.

Hellme Najim: Design the study providing the questionnaire and writing and editing.

References

1. Goldney RD, Ruffin R, Fisher LJ, Wilson DH. Asthma symptoms associated with depression and lower quality of life: a population survey. *MJA* 2003; 178:437-41.
2. Feldman JM, Siddique MI, Morales E, Kaminski B, Lu S-E, Lehrer PM. Psychiatric disorders and asthma outcomes among high-risk inner-city patients. *Psychosom Med* 2005; 76:989-96.
3. Janson C, de Marco R, Accordini S, et al. Changes in the use of anti-asthmatic medication in an international cohort. *Eur Respir J* 2005; 26:1047-55.
4. Singh AK, Cydulka RK, Stahmer SA, Woodruff PG, Camargo CA. Sex differences among adults presenting to the emergency department with acute asthma. *Arch intern Med* 1999; 159:1237-43.
5. Sundberg R, Kjell Tore'na, b, Franklin K, Gislason TD, Omenaas E, Svanes SG, Christer J. Asthma in men and women: Treatment adherence, anxiety, and quality of sleep *Respiratory Medicine* 2010; 104:337-344.
6. Tore'n K, Palmqvist M, Löwhagen O, Balder B, Tunsäter A. Self-reported asthma was biased in relation to disease severity while reported year of asthma onset was accurate. *J Clin Epidemiol* 2006; 59:90-3.
7. Verhaak PFM, Heijmans JWM, Peters L, Rijken M. Chronic disease and mental disorder. *Soc Sci Med* 2005; 60:789-97.

Correspondence:

Hellme Najim, MB Ch B DPM Lon FRCPsych

Essex University Foundation NHS Trust

UK

E-mail: hellmenajim@yahoo.co.uk