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ASTHMA SOCIO DEMOGRAPHICS, CAUSES, RISK FACTORS, SIGNS AND SYMPTOMS, TYPES, COMPLICATIONS AND MANAGEMENT IN ROYAL MEDICAL SERVICES JORDAN

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ABSTRACT

Introduction: Asthma is a respiratory disease well seen in all age, and in queen aliaa hospital it is frequently seen in internal medicine and in respiratory clinic. Asthma patients complain mostly of wheezy chest, cough, shortness of breath, dyspnea. Mostly seen in winter comes as attaches, it is a chronic situation mostly improves with age but if continues it becomes a medical situation which must be deal with it. Asthma may be improved with many preventive and medical measures. Sometimes preventive measures don't completely control the situation and need medication intake it may be inhalers, oral tabs, steroids or more than one kind. **Methodology:** Prospective prevalence study was conducted; a team of six doctors will full fill the survey and increase patient understanding of the disease. The target sample was from patients who will visit internal medicine clinic in queen alia military hospital at royal medical services between (2023-2024), this study will discuss socio-demographics, symptoms, signs, treatment measures, risk factors, types and causes. Analysis is done by SPSS 21 program. **Results:** Results discuss four main tables, table number one studies socio-demographics of Asthmatic patients, and in this table, it showed that patient's age who visited the clinic younger than 20 years old was statistically significant it was 76.8%, and those patients who were smokers and complained of asthma had a significant statistical relation with asthma it was 59.2%. In table two types of asthma were studied, this table showed that the main type seen in our internal medicine clinic was mild intermittent asthma, were patients complained of symptoms fewer than two times a week result showed that 66.6% of patients who visited the clinic had this type. Second most common type was mild persistent asthma, were symptoms appear more than two times a week, but no more than once a day this type was 16.6%. **Conclusion:** This study was conducted to clear the preventive measures effect in asthmatic patients. In addition, it is obvious it needs more studying. In addition, management of asthmatic patient is variable according to type of asthma and severity of the situation. Education of families on signs and symptoms is so important to let community be aware that disease must be diagnosed early to have better prognosis.

INTRODUCTION

Asthma is one of the most important chronic respiratory disease, which has an important impact on the life of patients. It affect health and life style and life productivity to any asthmatic patient. Asthma leads to difficulty in breathing due to inflammation and tightness in the airways, in children it is mostly chronic. Most common signs and symptoms are shortness of breath, wheezy chest, chest tightness, coughing is always there, these signs and symptoms may come as single or more than one, also may range from mild to severe. Asthma with in general in low income countries are under diagnosed and not so well treated or neglected specially in low in come communities. Because of that asthmatic patient, if not treated in a proper way it will lead to multiple complications like sleeping disturbance, poor concentration, missing word and affecting the family income. Asthma ranges from mild to severe, and in severe cases, it may be an indication for admitted to hospital, which will affect the patient's life. Symptoms of asthma may be worse if we are exposed to risk factors like pollens, smoke, fumes, dust, perfumes and other predisposing factors. In a report by WHO in 2019 262 million people had, asthma and 455 thousands patient were dead because of asthma.[1]

Asthma types are important to be under stood; it has two types persistent or intermittent. In intermittent patient feels free of symptoms between attaches, but in persistent symptoms are there always and patient must try to live with them and find a way to control them.[2]

When we are speaking about asthma, causes and predisposing factors we must concentrate on that family history which plays a measure role in asthmatic patients, and if patients are complaining of any other allergic condition, many conditions like low birth weight,

prematurity, air pollution, and may lead to increased risk of asthma in patients.[3]

When we speak on asthma treatment, we must put in mind that asthma is a chronic disease, it may be controllable by drugs but there is no complete cure for the patients because the disease is a chronic one. Therefore, when we want to study treatment of asthma we must understand the preventable measures and the drugs used in asthma treatment.

The most important way in reducing, symptoms in asthmatic patients are inhalers; these are used to control and improve breathing which leads to control asthmatic symptoms and signs according to severity. Some of these inhalers contain salbutamol and others contain steroids. Anti-inflammatory drugs also may help in controlling asthma attacks by decreasing inflammation.[4]

Asthma diagnosis is by taking a proper medical history, and doing proper physical exam to assess signs and symptoms. Using spirometer is the gold slandered method to evaluate the pulmonary function to see the volume of the breath and speed of breath. In addition, we can use challenge test to evaluate pulmonary function. In addition, tests like cheat x- ray, chest CT have a great value in evaluating of the patient situation.[5]

Prevention of asthma and asthmatic attacks is not easy, and not always effective in asthmatic patients. The World Health Organization recommends decreasing risk factors such as tobacco smoke, air pollution, chemical irritants including perfume, and the number of lower respiratory infections.[6]

METHODOLOGY

Prospective prevalence study is conducted; a sample of 108 patients who had asthma were interviewed by a team of six doctors who full fill the survey and increase patient understanding of the disease. The target sample was from patients who visit internal medicine clinic in queen alia military hospital at royal medical services between (2023-2024), this study discusses socio-demographics, symptoms, signs, treatment measures, risk factors, types and causes. Analysis done by SPSS 21 program.

RESULTS

Table 1: Socio demographic factors.

Variable	No. patients	Percentage
Age of onset	108	100%
20>	83	76.8%
20<	25	23.1%
Male	72	66.6%
Female	36	33.3%
smoker	64	59.2%
Family history	83	76.8%
Family income		
< 500	95	87.9%
>500	13	12.1%

In this table, no.1 socio demographics will be discussed. For example, it was will noticed that 76.8% of patients who visited the clinic were younger than 20 years while 23.1% were older than 20 years. Most of our patient were males they were 66.6% of patients contributing in this study. Smoking showed a strong relation with asthma since 59.2% of asthmatic patients visiting the clinic were smokers, also family history of asthma was so clear were 76.8% of patients having asthma had a family history of asthma in there families. It was obvious in the study that asthma was seen in low family income it showed 87.9% of the sample to be from low income families.

Table 2: Types of asthma.

Variable	No. patients	Percentage
Mild intermittent asthma. Symptoms fewer than two times a week.	72	66.6%
Step 2 – mild persistent asthma. Symptoms more than two times a week, but no more than once a day.	18	16.6%
Step 3 – moderate persistent asthma. Symptoms every day.	11	10.1%
Step 4 – severe persistent asthma. Constant symptoms.	7	6.4%

Table no.2 discusses four major types of asthma seen in patients. It was obvious that most common type seen in patients who visited our clinic was mild intermittent asthma. Symptoms fewer than two times a week. It was 66.6% of patients who visited our clinic second most common type seen in our clinic was mild persistent asthma. Symptoms more than two times a week, but no more than once a day it showed 16.6% of patients who visited our clinic. Third most common type seen in our clinic was moderate persistent asthma. Symptoms every

day it showed 10.1%. Least common type seen in our study was severe persistent asthma. Constant symptoms were it was 6.4%.

Table 3: Symptoms and Signs.

Variable	No. patients	Percentage
Shortness of breath	108	100%
Cough.	108	100%
Chest tightness or pain	89	82.4%
Wheeze (A whistling sound when you breathe)	56	51.8%
Waking at night due to asthma symptoms	28	25.9%
A drop in your peak flow meter reading (if you use one	12	11.1%

Table 3 shows most common symptoms and signs seen in asthmatic patients. Cough and shortness of breath were almost seen in all asthmatic patients. In addition, chest tightness and wheezy chest were also commonly seen in asthmatic patients it was (82.4%, 51.8%) respectively. Waking at night due to asthma symptoms was also seen in 25.9% of asthmatic patients. A drop in peak flow meter reading in patients who are participating in this study were also noticed, it was seen in 11.1% of patients participating in the study.

Table 4: Asthma management.

Preventive measures	No. patients	Percentage
Inhaler salbutamol	108	100%
Antihistamine	108	100%
Corticosteroid	89	82.4%
Daily bass	43	39.8%
On need	65	60.1%
2 drugs	38	35.1%
More than 2 drugs	14	12.9%

Table 4. Discuses medications used in asthma treatment. It was noticed that mostly all patients used salbutamol inhaler and antihistamine to control asthma in general. In addition, corticosteroid was one of the first line drug treatment in asthmatic patients since 82.4% of patients in this study used it to control symptoms and signs, 35.1% of patients used two drugs to control asthma and more than 12.9% of patients used more than 2 drugs.

DISCUSSION

This study is conducted to increase the understanding of asthma as a problem affecting patient's life in multiple aspects, health, productivity, family supporting, classification, diagnosing and management of cases. In our study we concentrated on socio demographic variables like smoking, age of patient, family history of asthma, is the family from the low or high-income category. All these factors had a significant relation in this study with asthma.

It was will noticed that 76.8% of patients who visited the clinic were younger than 20 years while 23.1% were older than 20 years. It is mentioned in other studies that asthma may appear in any age but they are mostly seen in young age.[7]

Most of our patient were males they were 66.6% of patients contributing in this study. This result is similar to other studies, which showed that in young age group asthma is seen mostly in males.[8]

Smoking showed a strong relation with asthma since 59.2% of asthmatic patients visiting the clinic were smokers; this result was similar to other studies, which showed that smocking increase severity of symptoms affecting patients.[9]

In addition, family history of asthma was so clear to show relation to have asthma were 76.8% of patients having asthma had a family history of asthma in their families. This reality was supported by many reports like that by WHO.

It was obvious in the study that asthma was seen in low family income it showed 87.9% of the sample to be from low income families.

This study showed that there is four major types in asthma patients. most common was mild intermittent asthma. Symptoms fewer than two times a week it showed 66.6% of patient who contributed in our study in other studies most common type was allergic and non allergic asthma.[10]

Were for example seasonal effects and occupational effects are studied.

In this study we also will discuss most common signs and symptoms seen in asthmatic patients, some of them are cough, wheezy chest, shortness of breath they showed significant numbers of patients visiting the clinic (82%.51%,100%) respectively. In comparison with other

studies, also these symptoms were frequently seen in asthmatic patients, it was mentioned in a myoclonic article that most common symptoms in asthmatic patients are shortness of breath, cough, wheezing during breathing.[11]

Management was also studied in this study, and it is the solution for patients to live there life close to normal and to modify the disease to be tolerable, in our patients it was well known that most of our patients used inhalers either salbutamol or corticosteroids. Also a lot of the patient were on two or three types of medications to control the attacks and this is compatible with other studies were it was seen in another article that best long acting treatment for the inflammatory process was cortisol inhaler and also short acting B –agonist like salbutamol. Also a lot of situations we may need to combine more than one type to control patient's situation.[12]

The prognosis in asthma is generally good, especially for children with mild disease. Mortality has decreased over the last few decades due to better recognition and improvement in care. In 2010 the death rate was 170 per million for males and 90 per million for females.[13]

CONCLUSION

This study was conducted to clear the preventive measures effect in asthmatic patients. In addition, it is obvious it needs more studying. In addition, management of asthmatic patient is variable according to type of asthma and severity of the situation. Education of families on signs and symptoms is so important to let community be aware that disease must be diagnosed early to have better prognosis.

REFERENCES

1. https://www.who.int/news-room/fact-sheets/detail/asthma
2. https://my.clevelandclinic.org/health/diseases/6424-asthma
3. Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study, 2019, 2020; 396(10258): 1204-22.
4. https://my.clevelandclinic.org/health/diseases/6424-asthma
5. https://www.mayoclinic.org/diseases-conditions/asthma/in-depth/asthma/art-20045198
6. Asthma. World Health Organization. April 2017. Archived from the original on, 2011, 2017; 29: 30.
7. https://asthmaandallergies.org/asthma-allergies/asthma-in-older-adults/
8. https://err.ersjournals.com/content/30/162/210067
9. https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/asthma-and-smoking
10. https://www.asthmaandlung.org.uk/conditions/asthma/types-asthma
11. https://www.mayoclinic.org/diseases-conditions/asthma/symptoms-causes/syc-20369653
12. https://www.mayoclinic.org/diseases-conditions/asthma/in-depth/asthma-medications/art-20045557
13. "The Global Asthma Report 2014". Archived from the original on, 2016; 27: 10.