



## **KNOWLEDGE AND CONSIDER THE PREVALENCE AND MANAGEMENT OF PEDIATRIC ASTHMA**

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<b>Article history:</b>	<b>Abstract:</b>
<p><b>Received:</b> August 8<sup>th</sup> 2021 <b>Accepted:</b> September 11<sup>th</sup> 2021 <b>Published:</b> October 13<sup>th</sup> 2021</p>	<p>A study focuses on Knowledge and Consider the Prevalence and Management of Pediatric Asthma Where 88 children were collected from Karbala Teaching Hospital for Children, Karbala, Iraq, and the average ages of the children ranged from 3 to 10 years were divided into two categories. Where it was relied on the SPSS 25 soft program to analyze all the information and statistical data to clarify the exact details of the specifications and results of pediatric patients</p> <p>The results reached the following: The highest age value for asthmatic patients was recorded at 7 years and 10 years</p> <p>Asthma detection and treatment rates are not high enough, and untreated asthmatics can develop sleep disturbances, daytime fatigue and decreased concentration. People with asthma and their families can drop out of school and work, with financial implications for their families and society. If symptoms are severe, people with asthma may need urgent medical attention and be admitted to the hospital for treatment and monitoring. In severe cases, asthma can be fatal.</p>

**Keywords:** Symptoms, Asthma, Pediatric, WHO.

### **INTRODUCTION**

Asthma is an allergic inflammation of the mucous membrane of the respiratory tract, characterized by episodes of shortness of breath or, as doctors say, episodes of bronchial obstruction [1]. "Obstruction" means "obstruction, impaired patency of the airways." During an attack of bronchial obstruction, a narrowing of the lumen of the bronchi occurs (reversible), the accumulation of mucus in them, which in children leads to frequent bouts of coughing and wheezing in the chest and, as a consequence, leads to attacks of suffocation [2].

So much is known about asthma, and so afraid of this diagnosis that they prefer to use innocuous terms: "asthmatic bronchitis," "obstructive bronchitis," "pre-asthmatic [3,4].

In their daily practice, pediatricians make extensive use of the diagnosis of "asthmatic bronchitis," even in

typical cases of asthma. Replacing the diagnosis of a serious illness - "bronchial asthma" with attenuated "bronchial asthma" calms the parents of the patient child and beats the doctor himself. It is much wiser to acknowledge asthma and take all necessary action in time than to avoid it and not treat the child. Cannot treat it with contempt [5,6].

There is a very similar group of diseases associated with asthma and associated with viral infections in childhood. They have nothing to do with asthma. Both an asthmatic infant and a fellow without signs of allergy can cause an obstructive attack on the background of ARVI.

The only difference is that in the case of bronchial asthma, attacks of the disease will recur, not only with ARVI but also in response to one or another non-infectious allergen. At the same time, the allergic child with obstructive bronchitis, most likely, will "grow up"



so that Bronchial obstruction stops after 1-2 of these episodes [7,8,9].

After the age of 3, almost all children with obstructive manifestations of bronchial asthma should be diagnosed with basic information on the development of bronchial asthma in children [10,11].

Many children have asthma without severe attacks of choking. The child suddenly gets sick, begins to cough (especially at night), may hear a "whistle" coming from the child's chest [12].

The local doctor listens for wheezing in the lungs, wheezing in the lungs and coughing may appear even in full health (when changing place of residence, weather, ambient air temperature and humidity) and can go away on their own without any treatment. In such cases, doctors often diagnose asthmatic bronchitis. This diagnosis should not reassure parents: Asthma bronchitis is a form of bronchial asthma and should be treated like bronchial asthma [13,14,15].

Due to the high prevalence of bronchial asthma and its ability to reduce the ability to work and cause disability, there are many global and national programs to combat this disease, On the initiative of the World Health Organization (WHO), every year, on the first Tuesday of May since 1998, is celebrated International Day for the Prevention of Bronchial Asthma [16,17].

Chronic inflammation, observed in patients with bronchial asthma, makes the airways sensitive to allergens, chemical irritants, tobacco smoke, etc. When exposed to it, edema and spasm of the airways occur; at this moment, bronchial mucus is produced in large quantities. This makes it difficult for air to pass through the airway normally while breathing [18,19].

Depending on the cause of the asthma attack, asthma is distinguished with a predominance of the allergic component and non-allergic asthma; one of the indicators that bronchial asthma is allergic is that the exacerbation occurs on contact with some allergens (pollen, wool, house dust, some foods) and are seasonality. An allergic asthma attack in humans is often accompanied by a runny nose, symptoms of dystonia [20].

In non-allergic asthma, the chronically inflamed airways are hypersensitive, i.e., irritation causes spasms of the bronchi, and the airflow through them is limited, resulting in coughing and asthma attacks [21].

In some children, an asthma attack persists in the form of a persistent night and daytime cough without asthma attacks, that is, the child coughs periodically - this is also a form of asthma (the so-called cough version of asthma), which increases time can turn to a typical form with asthma attacks [22].

Several children develop coughing or shortness of breath (dyspnea) in response to physical exertion - bronchial asthma caused by physical exertion.

Many parents note that with the strong excitement of the child, the child develops a cough, wheezing, difficulty breathing - this is also an asthma attack. Anxiety, especially associated with a child's inability to deal with a particular problem, often triggers seizures. Asthma symptoms can also cause vivid positive feelings in a child, especially if they are accompanied by violent physical activity [23,24].

Additional clinical manifestations confirm the diagnosis of asthma:

- Persistent or periodic manifestations of skin allergy in the child (rash on the skin, redness of the skin, scaling, cracks) or if the child suffers from exudative diathesis at one year. The presence of allergic diseases in relatives (parents, grandmothers, grandparents, brothers, sisters, etc.) is one of the risk factors for the development of bronchial asthma in a child;

- If the child often has a stuffy or runny nose, itchy nose, sneezing, tears, redness and itching of the eyes [12].

These symptoms are often manifestations of allergies in the nose and eyes and can be continuous or intermittent.

Note bronchial blockage in asthma, but also various infections. In large part of them, especially in adults, there is no relief of infection (photoperiods), which recognize from asthma.

Under the guise of asthma, the various diseases described by hacking and checking flight routes disappear in some cases. In this way, it may be well represented by foreign bodies in the respiratory excretion and is found regularly in young children [25]. Among diseases such as bronchial asthma, various ulcerations of the larynx and tracheal tree, specifically, papillomas of the bronchi, have been depicted. Various vascular irregularities, compressing the airways, obstruct the airways and is incorrectly called bronchial asthma. It tends to mimic tuberculosis, just like bronchial cancers and dyspnea of neuropsychiatric onset. Such pseudo-asthma attacks can be visualized in children and adults with emotional problems, anxiety and psychological maladaptation due to respiratory depression; patients grumble about the sensation of "absence" of air, not inhaling deeply, which they recognize from asthma, where the inhale is free, and the exhalation is disturbed [15,16].



**MATERIAL AND METHOD**

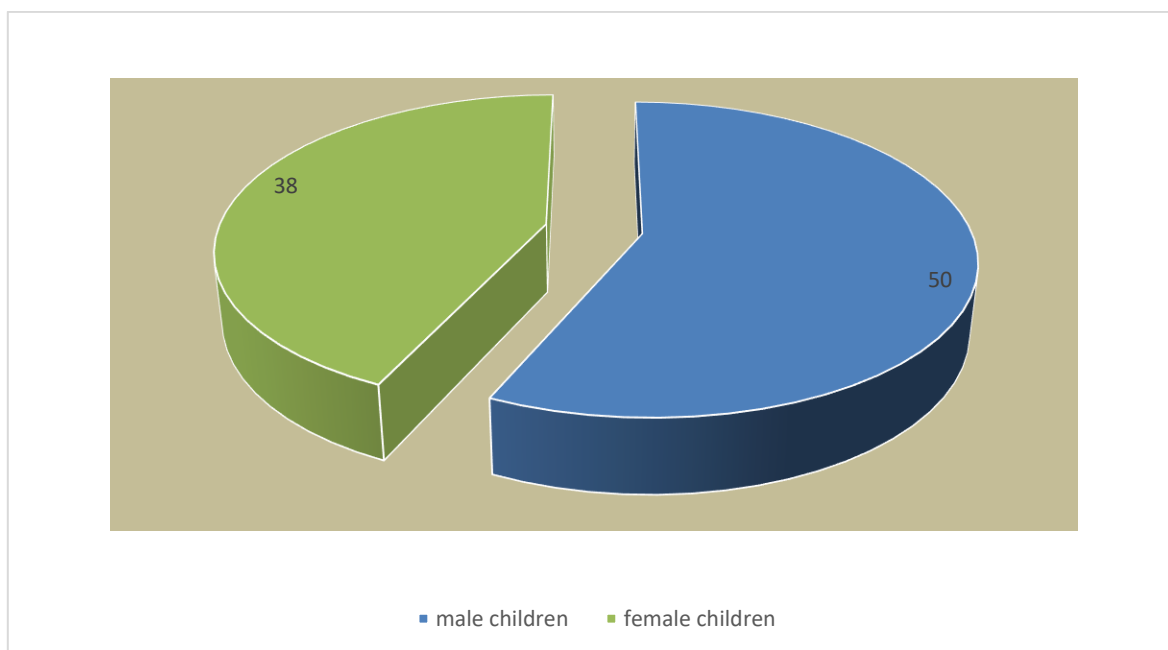
Clinical aspects were diagnosed as 88 pediatric patients were collected from Karbala Teaching Hospital for Children, Karbala, Iraq.

The research aimed to know and evaluate the effects of asthma on children. All the required and demographic variables were studied in terms of management and diagnosis. The average ages of the children ranged

from 3 to 10 years and were divided into two categories. The first section included male children at a rate of 50 out of 88. Females, which included 38 as shown in figure 1

Research has shown that not all cases of asthma are the same. Scientific developments have prompted Doctors to be aware that different types of asthma require different types of treatment

**Figure 1-** disturbance of patient depends on quantity.



**RESULTS**

**Table 1-** Frequency and percentage of age.

Age		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.00	8	9.1	9.1	9.1
	4.00	12	13.6	13.6	22.7
	5.00	16	18.2	18.2	40.9
	6.00	8	9.1	9.1	50.0
	7.00	13	14.8	14.8	64.8
	8.00	9	10.2	10.2	75.0
	9.00	13	14.8	14.8	89.8

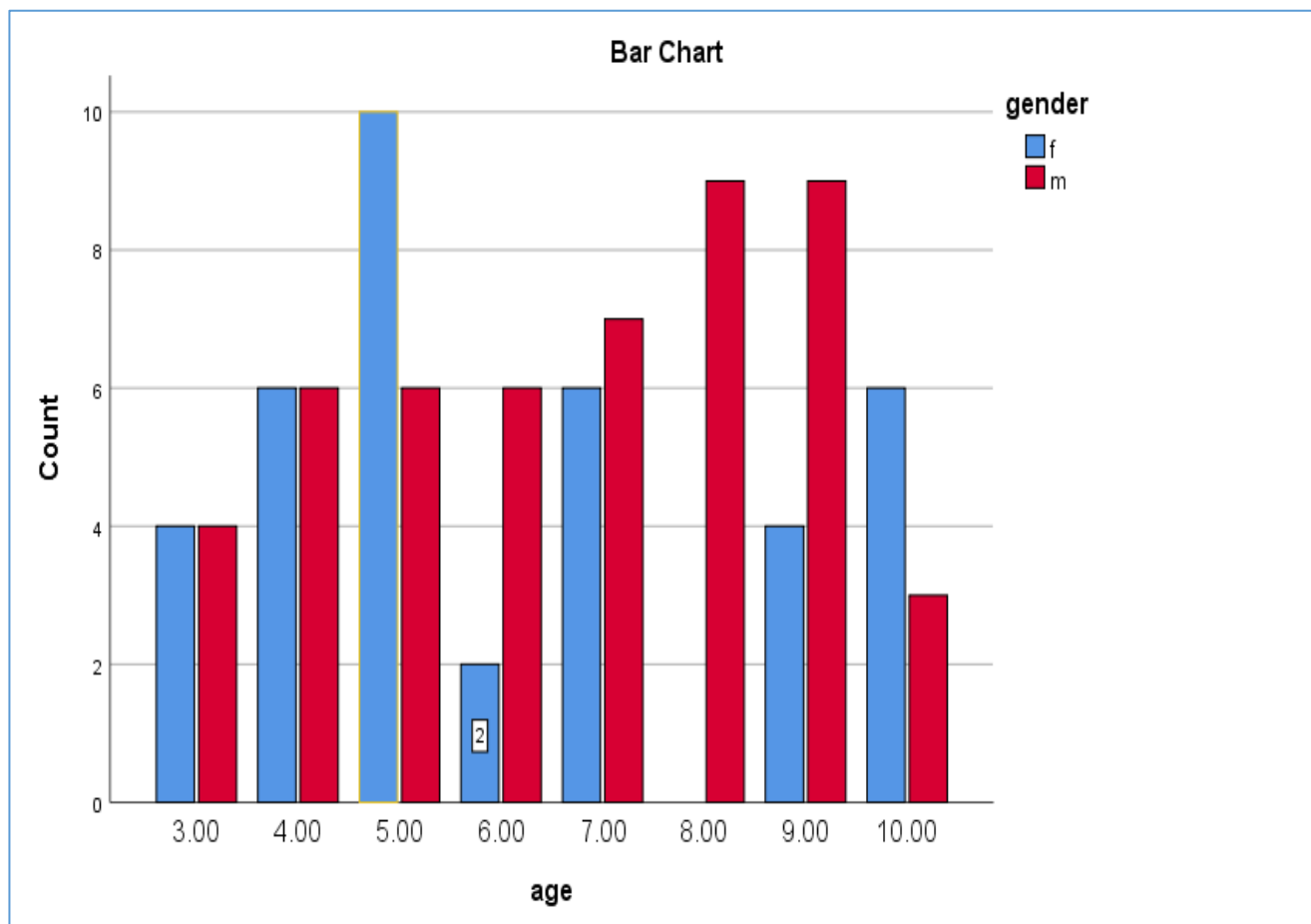


	10.00	9	10.2	10.2	100.0
Total		88	100.0	100.0	

**Table 2** – Cumulative Percent of gender.

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	f	38	43.2	43.2	43.2
	m	50	56.8	56.8	100.0
	Total	88	100.0	100.0	

**Figure 2** – disturbance of age depends on gender.





**Table 3 – results of patients and Signs and Symptoms of asthma.**

<b>Age * Gender * Sign Crosstabulation</b>					
Count					
sign			gender		Total
			f	m	
Allergy to dust	age	7.00		1	1
	Total			1	1
asymptomatic	age	3.00	1	0	1
		4.00	1	0	1
		5.00	0	1	1
		6.00	0	1	1
		7.00	2	0	2
		8.00	0	3	3
		9.00	0	1	1
		10.00	1	0	1
Total		5	6	11	
chest	age	9.00		1	1
	Total			1	1
cough	age	3.00	0	3	3
		4.00	2	2	4
		5.00	4	3	7
		6.00	0	2	2
		7.00	1	2	3
		8.00	0	4	4
		9.00	3	2	5
		10.00	3	0	3
Total		13	18	31	
Allergy to dust	age	3.00	1	0	1
		4.00	0	1	1
		6.00	1	0	1
		7.00	0	2	2
		9.00	1	0	1
Total		3	3	6	
runny	age	3.00	1	1	2
		4.00	1	0	1
		5.00	2	0	2
		6.00	0	1	1



		7.00	1	0	1
		8.00	0	1	1
		10.00	1	0	1
	Total		6	3	9
Sob	age	4.00	1	1	2
		6.00	0	1	1
		7.00	0	1	1
		8.00	0	1	1
		9.00	0	4	4
		10.00	1	3	4
	Total		2	11	13
tight	age	3.00	1	0	1
		4.00	1	0	1
		5.00	2	1	3
		6.00	0	1	1
		7.00	0	1	1
	Total		4	3	7
wheeze	age	4.00	0	2	2
		5.00	2	1	3
		6.00	1	0	1
		7.00	2	0	2
		9.00	0	1	1
	Total		5	4	9
Total	age	3.00	4	4	8
		4.00	6	6	12
		5.00	10	6	16
		6.00	2	6	8
		7.00	6	7	13
		8.00	0	9	9
		9.00	4	9	13
		10.00	6	3	9
	Total		38	50	88



**Table 4-** Pediatric Patients.

Statistics		
age		
N	Valid	88
	Missing	0
Mean		6.4773
Median		6.5000
Mode		5.00
Std. Deviation		2.21270
Variance		4.896
Minimum		3.00
Maximum		10.00
Sum		570.00

## DISCUSSION

Information and all demographic information were collected from Karbala Teaching Hospital for Children, Karbala, Iraq.

Where it was relied on the spss 25 soft program to analyze all the information and statistical data to clarify the exact details of the specifications and results of pediatric patients, as shown in Table No. 4 that the real value and the arithmetic mean to patients about age was  $6.477 \pm 2.21$  As shown in Table 4, the lowest value for ages was 3 years, and the largest value was 10 years. The highest age value for asthmatic patients was recorded at 7 and 10 years, which recorded these two values as 29.6 as shown in the first table. To the youngest age, the injury was 3 years old As for gender, it was found, through the percent calculation, that there were 38 female children and 50 male children, and this percentage ranged from 56.8 male children and 43.2 female children, as shown in Table 2.

As for the symptoms and signs related to asthma, the highest percentage was represented by coughing, which was present in 31 patients, and its percentage in males was 18. Its percentage in females was 13, and the lowest percentage was represented by a sob, which was present in 4 patients. It was thus represented by 3 percentages in males and 1 patient relative to females. It was also noted that an asymptomatic ratio was also present, which was somewhat high, which was represented by 11 patients, as shown in Table 3

In each case, asthma symptoms express themselves differently 1: Some patients may be wheezing, while others may only have a cough. Symptoms may worsen with asthma attacks. It is necessary to see how the disease manifests itself to develop an effective preventive plan and to stop the attacks quickly

Even if asthma symptoms do not appear, inflammation or edema in the airways may still occur. It is necessary to take control drugs regularly to relieve inflammation in the airways and control the symptoms of the disease. In addition, for effective control, try to avoid exposure to provoking factors,

Peak flow meters measure the rate at which air is expelled from the lungs and should be used for moderate to severe disease to monitor changes in the condition of the airways. When symptoms get worse, the peak flowmeter reading decreases. Early detection of reduced lung performance will allow you to adjust the dosing regimen and not return the disease to a critical condition 7 Check with your healthcare professional to see if you need to use a peak flowmeter regularly.

## CONCLUSION

Asthma and allergies are directly related to the genes inherited from the parents. Experts are now looking for different genetic characteristics to determine the disease's indications. It varies from person to person because asthma affects everyone differently. In addition, the influence of genetic factors often determines the individual response of patients to



treatment. Exposure to external factors can lead to genetic changes. Future generations can inherit these changes, increasing the risk of developing asthma (an epigenetic mechanism).

A key area of research in pediatric asthma is gaining new insights into the disease's genetics and identifying markers to help experts predict how patients respond to different treatments.

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