



## RESEARCH ARTICLE

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## Clinical Findings of Patients with Human Bronchial Asthma in Basrah, Iraq

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### ABSTRACT

This study aimed to describe the clinical features of patients asthma in Basrah south in Iraq .The study showed that (3,5) age group population were more affected with asthma (27.9%) and the Females were more affected than males in group 2,3and 5 (6.4%,15.7% and 14.7%)respectively compared to( 4.9%,12.3% and 13.2) . in same group of male. While There were (68.6%) of patients came from urban areas in comparison to (31.4%) of cases who came from rural areas. The Smoking patients with positive (43.1%). and well patients with animal contact positive their proportion was while (49%). Seasonal asthma attack in male (23.5%) more than female (20.6%) the perennial asthma attach was recorded in male (29%) more than female (26.9%) in this study show Asthmatic patients with other allergy about (15.7%) and with chronic diseases (31.9%). The percentage of patients with positive family history were 39.2% of the cases, The pulmonary function test result was recorded below (70%) in all age groups. Skin test where the study found highly percentage to HDm to female (76.8%) and (66.2%) to male and HD to female (69.5%) and (68.7%) to male.

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### Introduction

Asthma is a complex respiratory disease in which genetic predisposition, environmental and immunological influences interfere with each other (Edwards,et al., 2012). It is considered one of the most prevalent chronic diseases, affecting approximately 300 million individuals (Masoli, et al., 2004) and causing an estimated 250,000 deaths each year (Bateman, et al., 2008). In addition, it is projected that by 2025, the global asthma burden will rise by 100 million people due to a growing Westernized lifestyle and urbanization in developing countries (Masoli, et al., 2004). The 'hygiene theory' was originally attributed to an increase in the prevalence of allergic diseases, including asthma, indicating that decreased exposure to microbes during the first years of life plays a role in the development of allergic diseases (Strachan, 1989, 2000). While this theory is generally accepted, studies have shown that the increased incidence of asthma, rhinitis, or Neurodermitis does not completely account for decreased microbial exposure (Mallol, 2008; Brooks ,et al.,2013 and Kramer et al., 2013). Asthma is a widespread illness globally and affects individuals of all ages, This condition usually occurs in infancy and is characterized by variable symptoms of wheeze, dyspnea, and chest tightness caused by air flow obstruction (fully reversible) (GINA, 2015 and Bisgaard & Bonnelykke,2010).

### Materials and methods

#### Samples

A total of (312) patients (149 males and 163 females) of various age groups were included in this Case –control study. The patient

was examined, and diagnosed as asthma under supervision of the Physician. The study was carried out during a period from July 2018 to January 2020.

Male& Female patients were divided into five groups according to (Falk, 1993; Herd,et al.,1996 ; Nishioka,1996 and charman& Williams,2002)

#### Group 1: 1- 11 years

#### Group 2: 12 – 2o years

#### Group 3: 21- 3o years

#### Group 4: 31 – 4o years

#### Group 5: above 4o years

#### Control group

A total of (204) healthy individual (81 males and 123 females) with out any features of asthma or any allergic to be compared with asthmatic patient in genetic and immunological studies.

#### Statistical analysis

Statistical analysis is done by using statistical package for social sciences(SPSS) software version 11, the chi square test, univariate and multivariate logistic regression analysis, the ANOVA analysis were applied for correlation between each study parameter, and the difference between two proportion by T- tests were used to

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assess the significance of difference between groups, P-Value less than 0.05 was considered as Statistically significance(S). P-value < 0.01 as highly significant(HS). and P-value >0.001 as extremely significant(ES).

## The Results

Table (1) Show Seasonal asthma attack females and males in percentages 20.6% and 23.5% respectively, while female and male suffering to Perennial asthma attack in 26.9% and 29% other allergies were recorded 6.4% and 9.3% in female and male , family history was recorded 16.6% and 22.5%, and chronic disease were recorded 14,2% and 17.7%. in females and males respectively.

**Table 1: Clinical characteristic of studied samples**

Clinical characteristic		Female NO. %	Male NO. %	Total NO. %	P.Value	
Asthma attack	Seasonal	42 20.6	48 23.5	90 44.1	0.0862	NS
	Perennial	55 26.9	59 29	114 55.9	0.0831	NS
Total		97 47.5	107 52.5	204 100.0	0.0792	NS
Other allergies	No	84 41.1	88 43.2	172 84.3	0.0934	NS
	Yes	13 6.4	19 9.3	32 15.7	0.0732	NS
Total		97 47.5	107 52.5	204 100.0	0.0634	NS
Family history	No	63 30.9	61 30.0	124 60.8	0.0976	NS
	Yes	34 16.6	46 22.5	80 39.2	0.0541	NS
Total		97 47.5	107 52.5	204 100.0	0.0634	NS
Chronic disease	No	68 33.3	71 34.8	139 68.1	0.0734	NS
	Yes	29 14.2	36 17.7	65 31.9	0.0537	NS
Total		97 47.5	107 52.5	204 100.0	0.0634	NS

## Discussion

Asthma attacks, according to the study majority (55.9%) in perennial were (44.1%) in seasonal, the researcher believe this result due to increasing environmental pollution in addition to lack of concern for health status. These result confirmed by Tajiri,(2014).

The study found that the number of asthma patients with a family history was 39.2%. (Table 1). Cengizlier and Misirlioglu posted similar findings (2006). All of the recent asthma family history studies confirmed that asthma was strongly associated with family history of asthma. Fuhlbrigge, (2001) mentioned that about three-fourths of all cases of asthma seem to be hereditary. Weiss, (2001) reported that risk of asthma increases in the children if one of the parent being asthmatic also it is more likely if both parents are asthmatic. Even identical twins are more likely being asthmatic than non-identical twins. (Mingomataj et al., 2008) found that the percentage of family history was 23.3%. (Eseverri et al., 1998) found out that among the risk factors of asthma, 69% of the patients had a family history.

With respect to family history (39.2%) of the subjects had the family history of asthma. The finding of this study indicates that less than half of the studied sample has a healthy bronchial asthma family history, the researcher suggests that this outcome may suggest that heredity plays a major role in disease. This finding was in line with the findings of several studies that showed that bronchial asthma is a family disease and can also be a script for external aggravating factors. Backed by the results of (Parvin, et al., 2011). This finding and research showed that most of the studied individuals had a family history of asthma (49.3 percent).

The analysis revealed a high percentage (84.3 percent) of the study samples of other allergies not present (15.7 percent) from samples of other allergies present because the researcher assumes this finding is attributable to experience of asthma patients who are subjected to continuous weekly

Treatment at the Basra Allergy and Asthma Center. (Hong, et al, 2012). did not confirm these outcomes , The majority (68.1 percent) of the study was not present with respect to chronic illness, although (31.9 percent) were present, the researcher assumes that this outcome is due to increased samples taken from women in age groups 3 and 5 and the hormone variations between the sexes. Such outcomes are confirmed by From Nafstad, (2001).

These results of present study were not confirmed by with the finding of many studies done by (Ronmark, et al., 2005; Nicolai, et al., 2001 ; Becklake, and Kauffmann, 1999). Another study (Anthony , et al., 2004) was entitled with “ New-onset asthma among soldiers serving in Iraq and Afghanistan “ whereas their results show that the women had higher risks of asthma: 1.90 (1.37, 2.63) for men, and 1.70 (0.66, 4.40) for women.

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