

## Short Communication

# A study of atopic diseases in Basrah

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**A study of atopic diseases; allergic rhinitis, bronchial asthma and atopic dermatitis were carried out in this investigation. From 174 patients, 39.08% has atopic dermatitis, while 33.90 and 27.01% have bronchial asthma and allergic rhinitis, respectively. Males has a greater percentage of bronchial asthma than females ( $p < 0.01$ ), while females has a greater percentage of allergic rhinitis ( $p < 0.01$ ) and atopic dermatitis ( $p < 0.05$ ).**

**Key word:** Atopy, inflammation, allergic, asthma.

## INTRODUCTION

Atopy, in general, refers to a condition or disease associated with the presence of allergen-specific immunoglobulin E (IgE) antibodies (WHO, 2005). Atopic diseases refers to a group of diseases where there is often an inherited tendency to develop other allergic conditions such as asthma and hay fever. These diseases include allergic rhinitis, bronchial asthma, and atopic dermatitis (atopic eczema) (NIAMS, 2003). The allergic cases occur mostly before the age of 4 - 5 years; the spectrum of symptoms of atopic disorders varies with age.

Allergic rhinitis is an allergen-dependent inflammation of the lining of the nose associated with conjunctivitis. It may be chronic, recurrent or seasonal (Sheikh, 2004). Bronchial or allergic asthma is a chronic inflammatory disorder of the airways in which many factors play a role in susceptible individuals; this inflammation causes an associated increase in airway responsiveness to a variety of stimuli, as well as recurrent episodes of wheezing, breathlessness, chest tightness, and cough, particularly at night and/or early morning (Tamburlini, 2002). Atopic dermatitis (atopic eczema) is an inflammatory skin disorder characterized by severe itching, a chronic or chronically relapsing course, and a particular distribution of lesion that change with age. 10 - 20% of children with this disease develop asthma (WHO, 2005; NIAMS, 2003).

## MATERIALS AND METHODS

174 out patients from main hospital in Basrah providence were examined in (Allergic and Asthma diseases center) under clinician supervision to diagnosis atopic diseases for both sex and various

age group depending on minor and major criteria for each disease (Hollingsworth et al., 2005; Sheikh, 2004; Spergel and Schneider, 1999). The patients were divided into three age stages as shown in Table 1.

## RESULTS AND DISCUSSION

From 174 patients 68 (39.08%) patients suffer with atopic dermatitis followed by bronchial asthma with 59 cases (33.90%) and allergic rhinitis with 47 cases (27.01%) (Table 2). Table 3 shows that more male patients have bronchial asthma (61.01%) than female patients (38.98%). This disease is also more in the childhood stage (55.93%). In Table 4 patients with allergic rhinitis is more in female (57.44%) than male (42.55%) patients. The childhood stage (51.06%) is also more infected ( $p < 0.01$ ). Patients with atopic dermatitis illustrated in Table 5. The prevalence in females is also higher (52.94%) than in males (47.05%), and it is also more at the childhood stage (41.17%) ( $p < 0.5$ ).

Our results revealed high percentages of patients with atopic diseases; atopic dermatitis (39.08%), bronchial asthma (33.90%), allergic rhinitis (27.01%), and the childhood age stage showed higher number of cases with atopic diseases in comparison with other age stage of diseases. The results of the present study compares very well with other studies. NIAMS (2003) estimate that 65% of patients develops symptoms in the first years of life, and 90% develop symptoms before the age of 5, but after age 30 years the disease is less common often due to exposure of the skin to harsh or wet condition. Spergel and Schneider (1999) found that atopic dermatitis is a

**Table 1.** Three age stages of patients.

Stage	Age (yrs)
Infantile	0 – 2
Childhood	2 - 12
Adulthood	>12

**Table 2.** Number of cases of atopic diseases.

Patients	Bronchial asthma	Allergic rhinitis	Atopic dermatitis	Total
Number	59	47	68	174
%	(33.90)	(27.01)	(39.08)	

**Table 3.** Number and percentages of patients with bronchial asthma at various age stages.

Disease stage	Male number of cases (%)	Female number of cases (%)	Total number of cases (%)
Infantile	6 ( 10.16 )	4 ( 6.77 )	10 ( 16.94 )
Childhood	20 ( 33.89 )	13 ( 22.03 )	33 ( 55.93 )
Adulthood	10 ( 16.94 )	6 ( 10.16 )	16 ( 27.11 )
Total	36 ( 61.01 )	23 ( 38.98 )	59

**Table 4.** Number and percentages of patients with allergic rhinitis at various age stages.

Disease stage	Males number of case (%)	Female number of cases (%)	Total number of cases (%)
Infantile	5 (10.36)	8 (17.02)	13 (27.65)
Childhood	11 (23.40)	13 ( 27.65 )	24 ( 51.06 )
Adulthood	4 ( 8.51 )	6 ( 12.76 )	10 ( 21.27 )
Total	20 ( 42.55 )	27 ( 57.44 )	47

disorder that affects about 10% of the population. Over 85% of atopic dermatitis presents in early life and rarely occurs after 45 years of age (Leung, 1995; Stewart and Thomas, 1995). Scandinavian studies have demonstrated a cumulative prevalence rate of 15% in men and 14% in women (Nayak, 2003). Blaiss (1999) recorded that over 40 million people in the United States are affected with allergic rhinitis. Corren (2000) noticed that most patient with allergic rhinitis develop symptoms by age 20 years. While Thompson et al. (2000) mentioned that allergic rhinitis is common in childhood, adolescence and early adult years, with mean age of 8 – 11 years. Hollingsworth et al. (2005) found that bronchial asthma affects 5 - 10% of the population or an estimated 14 - 15 million persons. Bethea, (2004) indicated approximately 500,000 Queen-

**Table 5.** Number and percentages of patients with atopic dermatitis at various age stages.

Disease stages	Males number of case (%)	Female number of cases (%)	Total number of cases (%)
Infantile	13 ( 19.11 )	11 ( 16.17 )	24 ( 35.29 )
Childhood	10 ( 14.70 )	18 ( 26.47 )	28 ( 41.17 )
Adulthood	9 ( 13.23 )	7 ( 10.29 )	16 (23.52 )
Total	32 ( 47.05 )	36 ( 52.94 )	68

slanders and 2.2 million Australians have been diagnosed with bronchial asthma. EMIS and PIP (2004) reported that the prevalence rate of severe asthma in industrialized countries ranges from 2 - 10% and the factors that have been implicated include urbanization, air pollution, passive smoking, and change in exposure to environmental allergens.

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