Editorial

ALLERGENS AS RISK FACTORS FOR BRONCHIAL ASTHMA

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Many people with bronchial asthma are allergic to things that they breathe in. These tiny particles that can cause allergic reactions are called allergens. Airway hyper reactivity is integral to the diagnosis of bronchial asthma. The relationship between atopy and asthma is well established and in many individuals there is clear relationship between sensitization and allergen exposure. Inhalation of allergen into the airway is followed by two-phase bronchoconstrictor response with both an early and late phase response[1].

Inhaled allergens are able to activate mast calls with bound IgE directly leading to the immediate release of bronchoconstrictor mediators resulting in the early response reversed by bronchodilators. Often, experimental allergen challenge is followed by a late response where there is airway oedema and an acute inflammatory response with increased eosinophils and neutrophils that is not very reversible with bronchodilators[2].

The distinction between the early and late phases, which is a useful simplification in research, is of little value in the clinical context as most cases of severe asthma are likely to involve a multiplicity of mechanisms combining elements of both the acute and chronic inflammatory response[3].

Though house dust and mite are common allergens, cockroach represents one of the most important indoor allergens worldwide and 40% to 60% of patients with bronchial asthma posses IgE antibodies to cockroach allergens. Tobacco may be responsible for a specific IgE response. Patient with pollen asthma has more positive response to tobacco due to cross-reactivity between Lolium and tobacco[4].

Legumes are important causative agents of type -1 hypersensitivity in south Asia and Europe. Black gram induces IgE mediated reactions in 1.7% of asthma and rhinitis[5].

Though allergens trigger asthmatic attack in 60% to 90% patients with bronchial asthma, there are few studies to determine the common allergens responsible for such attacks in our country. We are glad to publish a study named, “allergen skin test reactivity in adult bronchial asthma patient” in the present volume of JAFMC. Though the sample size was small we hope this will trigger other researcher to carry out research in large scale.

References

1. Colledge NR, Walker BR, Ralston SH. Davidson’s Principle and Practice of Medicine. 21st ed. London: Charchil Livingstone; 2010, P 662-670

2. Brauuwald EF, Auci AS, Kasper DL, Hauser SL, Louge DL. Crofton and Douglas’s respiratory diseases. 5th ed. Blackwell Science p.908

4. Armenita A, Bartolome B, Puyo M, Paredes C, Calderon S, Asenso T, Del Villar V. Ann of Allergy Asthma Immunol. April; 98 (4): 329-36.

5. Kumari D , Kumar R, Sridhara S, Arora N, Gaur SN, Singh BP. Allergy. Vol 61, Issue 1, p.104-110

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