Your Name

Instructor Name

Course Number

Date

Title: What causes allergies?

An allergy occurs when the immune system of a body detects some foreign substances such as pet dander, bee venom and pollen and reacts by causing an allergic reaction. The substance which causes allergy is known as an allergen. In reaction to the response to a foreign substance, the immune system produces a substance known as antibodies. These antibodies travel to cells which produce histamine causing an allergic reaction and inflame a person’s skin airways, sinus and digestive system. The allergy severity varies from one person to another and can range from minor reaction to anaphylaxis. Most of the allergies cannot be cured however, treatment can reduce the symptoms of allergy. The allergy may be seasonal such as symptoms of hay fever can peak between April and May because the pollen count is higher in the air.

Globally hay fever affects almost 400 million individuals, food allergies affect around 250 million people, asthma affects 300 million and drug allergies affect approximately 10% of the world population. According to the World Allergy Organization, worldwide allergic diseases rise intensely in both developing and developed countries. Allergen has the potential to cause allergy and is found everywhere in the environment. Allergies can be manifested in many ways and experience of every individual is unique. The body reacts by developing hay fever (allergic rhinitis), eczema (atopic dermatitis), food allergies, allergic asthma and anaphylaxis (Medical News Today, 2019).

**Types of allergy (Aafa.org, 2019)**

*Food Allergy*

In the United States, more than 50 million individuals have some kind of allergy. According to the CDC, food allergies affect almost 4-6% of children and 5% of adults. The symptoms of food allergy are more common in children and babies but can appear at any age. A reaction to food allergy occurs when a person immune system overreacts to a food. Food allergy symptoms range from mild to severe. The most severe type of allergic reaction is known as an anaphylactic reaction. It is a life-threatening reaction that impairs the breathing of individual and causes a drop in blood pressure and also affects heart rate. An anaphylactic reaction can occur within a minute after exposure to food and can be fatal. Epinephrine is used to treat the symptoms of an anaphylactic reaction. The eight types of food which account for almost 90% of all allergic reaction include milk, egg, fish, peanuts, shellfish tree nuts, soy and wheat.

*Drug Allergy*

Drug allergies can cause by medicines that comes in injectable liquid or pill form. The symptoms of drug allergy include itching, skin rash, breathing problems and swelling. An anaphylactic reaction can also occur affecting two or more organs. Most common drug allergies trigger include anticonvulsants, penicillin, chemotherapeutic drugs, NSAIDs and antibiotic-containing sulfonamides. Drug allergies can be tested by the skin test.

*Insect allergy*

Wasps fire ants, bees, yellow jacket and hornet are common insects that trigger an allergic reaction. Non-stinging insects such as dust mites and cockroaches can also cause an allergic reaction. Allergies to dust mire and cockroach are one of the most common causes of year-round asthma and allergy.

*Latex allergy*

Individuals who are at a high risk of latex allergy include health care professionals who use latex gloves frequently, individuals with multiple surgeries, and people who exposed to rubber latex. The symptoms include runny nose, hives, chest tightness, itching and difficulty breathing. The most severe allergy symptoms of latex allergy include anaphylactic reaction. Skin problems can also occur after direct contact with latex gloves product and latex proteins. Symptoms include swelling and redness of skin and itching.

*Mould Allergies*

In the United States, there are more than 1000 mould species. When tiny spores of mould become airborne they can trigger an allergic reaction in individuals with mould allergies. As mildew and mould can grow in many places (both outdoor and indoor) allergic reaction can occur throughout the year.

*Pollen allergy*

Pollen is considered as one of the most common triggers for seasonal allergies. It is usually referred to as seasonal allergic rhinitis. It can be of two different types.

Seasonal: The seasonal allergic rhinitis symptoms can occur in early fall, summer and spring. They are caused by allergy sensitivity to airborne pollen from weeds grass and trees.

Perennial: Individuals with perennial allergic rhinitis experience symptoms throughout the year. This is caused by dander, mould and dust mites.

**Treatment**

Over the counter antihistamines such as diphenhydramine, decongestants, corticosteroids, are prescribed by doctors to treat mild allergic symptoms. Saline nasal rinses can also be used to treat congestion related to allergy symptoms. For skin allergies, corticosteroids creams are used and for chronic allergy symptoms immunotherapy is used. Prevention of allergic reaction usually depends on the allergy type. If a person is allergic to some substance, then he or she should try to avoid allergic triggers ("Allergic Reaction: Causes, Symptoms, And Treatments").

**Conclusion**

Allergy is one of the chronic health condition and individuals with a family history of allergy are at an increased risk of developing an allergic reaction. The immune system purpose is to protect the person against foreign substances such as viruses, bacteria, fungi etc. and destroy infectious substance that invades the body. Allergens can be ingested, inhaled and enter through the skin. A common type of allergic reaction such as hives, hay fever, and certain asthma is linked to a production of antibody known as IgE. Each type of antibody is specific which react against allergens and some pollens. Whenever an individual is exposed to an allergen, the body produces a large quantity of IgE antibodies. The next exposure to same type of allergen results in an allergic reaction and the allergic symptoms depend on the amount and type of allergen encounter.

**References**

Medical News Today. (2019). *Allergies: How do they develop?*. [online] Available at: https://www.medicalnewstoday.com/articles/319708.php#1 [Accessed 5 Dec. 2019].

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