A Review on the Effectiveness of Allergy Immunotherapy

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Food allergies are a serious public health problem that affects about 32 million people in just the United States and an estimated 220 million people globally. Allergic reactions occur when the immune system reacts to an allergen by triggering the production of antibodies called immunoglobulin E (IgE). IgE antibodies travel throughout the body and release chemicals that cause allergy symptoms. Currently there is no cure for a food allergy, those who are born with an allergen health problem must carry it with them for the rest of their lives. The standard care approach for treating food allergies of allergen avoidance and pharmacotherapy are becoming impractical and unaffordable. However, many advances have been made towards finding a cure for food allergies in the form of allergy immunotherapy. Allergy immunotherapy is a treatment that aims to build immune tolerance to allergens in an effort to “cure” a patient's food allergies. In this paper I review the literature on allergy immunotherapy and argue that there is potential for allergy immunotherapy to become the new standard for allergy treatment. Research has demonstrated that immune tolerance can be achieved by exposing a patient to incremental doses of an allergen until their immune system is eventually desensitized to the allergen. The amount of allergen present in the body needed to activate the production of IgE is effectively lowered with this technique. A patient who undergoes allergy immunotherapy can eventually consume food they are allergic to without the symptoms of an allergic reaction. In conclusion, the further development of allergy immunotherapy treatments and a shift towards becoming the standard form of allergy treatment is underway and showing promise.