Living with Allergy Worksheet

About type I allergy

Name _____

Put words that fit the following blanks.

Allergy can be said to be a runaway of the immune system in a nutshell. Allergy is classified into four, "Allergy" widely said in society is usually classified as this type I allergy. It is also called immediate type allergy because the time from the invasion of the allergen until the symptoms appear is short. Let's look at the mechanism of the development of type I allergy.

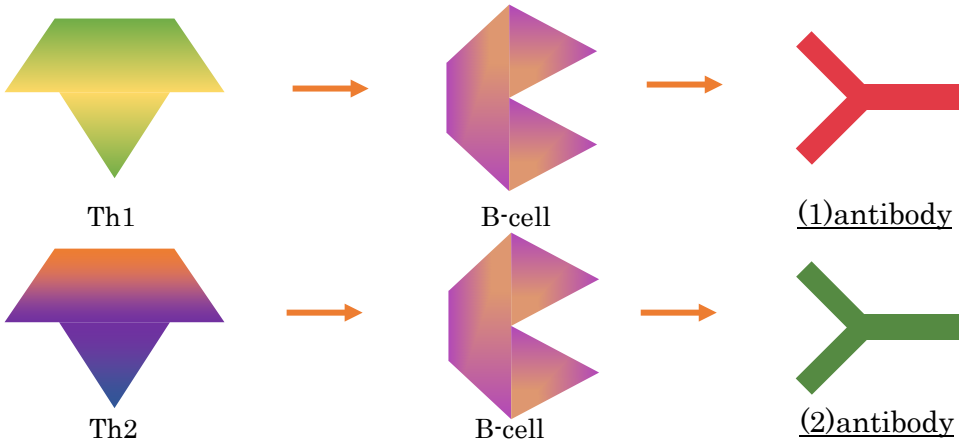
1. Antigen presentation to Th2

"Allergen" causing substance like pathogen is an antigen for immunity and it thinks it should be excluded, but there is definite difference. Therefore when macrophages and dendritic cells find allergens, they present antigen to Th2 rather than Th1.

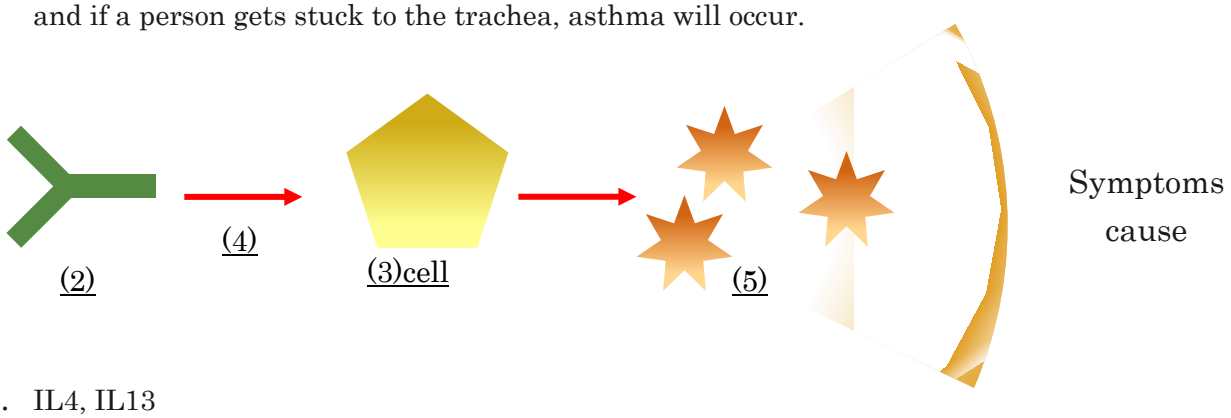
This is also the reason of antigen presentation to Th2 rather than Th1 at the time of discovering "Allergen".What is the biggest difference from allergen pathogens?

Answer
High risk. Pathogens are high but allergens are low.

Th2 is the same helper T cell as Th1, but the type of antibody made by B cells is different. Th1 allows B cells to make IgG antibodies and so on, this Th2 makes IgE antibodies.

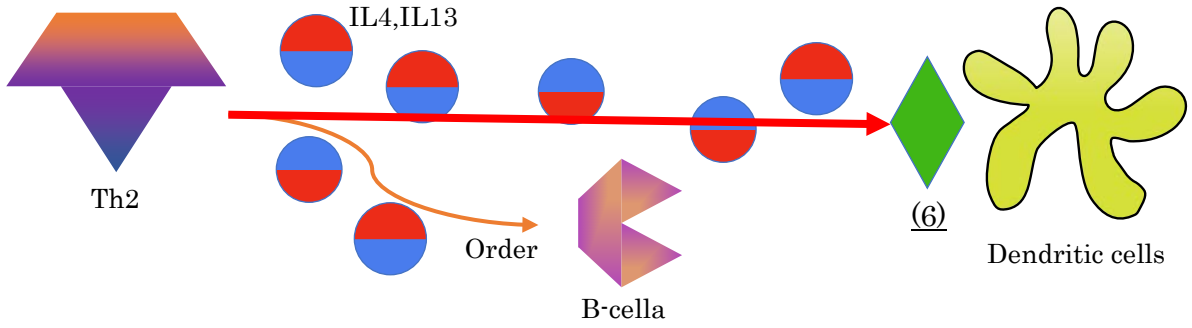


2. The antibody made to Th2 binds to (3)Mast cells (this is called (4)sensitization).Then, the cell releases the chemical called (5) histamine that was contained in itself, and later causes various allergic symptoms. When this sticks to the skin, for example, inflammation of the skin occurs, and if a person gets stuck to the trachea, asthma will occur.



3. IL4, IL13

IL4, IL13 are substances used as communication way when Th2 commands B cells. The official name of IL is interleukin . These substances make (6)receptors that make dendritic cells. bind with antibodies easily.



As a result of this, type I allergy once develops and as long as there are allergens around, the symptoms may not be cured or even worsened. Let's explain why in your own words.

Answer

Once you have allergic symptoms, IgE antibody receptors can be generated in dendritic cells. As a result, more IgE will be bound, resulting in incorporation of more allergen as a result.