Test yourself in allergy diagnosis

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Choose only one answer:

1. Activated T cells induce death of a target cell by:
   a. Secreting perforin and granzymes
   b. Releasing pro-inflammatory cytokines including interferon-γ (IFN-γ) and TNF-α
   c. Activation of Fas receptors on the surface of target cells
   d. All of the above

2. Genetic risk factors for type 1 diabetes mellitus (T1DM) include all of the following except:
   a. CTLA4
   b. PTPN22
   c. ABBC8
   d. INS

3. Pathogenic mechanisms that trigger T1DM onset in genetically susceptible people, resulting in β-cell apoptosis and diabetes include all of the following except:
   a. IL-10
   b. NF-kappa
   c. IFN-γ
   d. TNF-α

4. You can find high serum levels of the following inflammatory markers in the newly diagnosed type 1 diabetes mellitus patients:
   a. IL-18
   b. CXCL9
   c. IFN-γ
   d. All of the above

5. All of the following autoimmune Th1 diseases are associated with type 1 diabetes mellitus except:
   a. Thyroiditis
   b. Celiac disease
   c. Eosinophilic gastrointestinal disorders
   d. Rheumatoid arthritis

6. All of the following sentences are true except:
   a. Th1 cytokine secretion and not Th2 is associated with the size of immediate hypersensitivity skin test to allergens and bronchial hyper-responsiveness in T1DM children.
   b. Atopic manifestations in children with chronic disease such as T1DM are most difficult to be diagnosed.
   c. Th1 cytokine secretion may either be pro- or anti-inflammatory in the same autoimmune disease.
   d. Allelic variation in the IL-13 gene is associated with IgE levels variance and atopic illness but has no detectable effect in type 1 diabetes.

7. The new paradigm identifies additional lymphocyte subsets between autoimmune as well as atopic diseases except:
   a. CTLA-4
   b. Th17 T cells
   c. Regulatory T cells (Treg)
   d. Soluble transcription factors

8. All of the following sentences are true about the link between atopic diseases and type 1 diabetes except:
   a. Children with diabetes had fewer symptoms of asthma as well as atopic dermatitis compared with the general population.
   b. Th1-mediated diseases may protect against the development of Th2-mediated atopic disease.
   c. Environmental factors interacting with the genetic profile of each patient is not related to the natural history of both the T1DM as allergic diseases.
   d. The parallel appearance of asthma and autoimmune conditions in the same patients may reveal aberrations of the immune system regulation instead of polarization towards Th1 or Th2 domination as a common pathophysiological mechanism.

(Answers on page 57)