

## 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- $\gamma$  (IFN  $\gamma$ ) and TNF  $\alpha$
  - 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. ABCC8
  - d. INS
- 3. Pathogenic mechanisms that trigger T1DM onset in genetically susceptible people, resulting in  $\beta$ -cell apoptosis and diabetes include all of the following except:**
  - a. IL-10
  - b. NF-kappa
  - c. IFN- $\gamma$
  - d. TNF-  $\alpha$
- 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- $\gamma$
  - 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)