

Immunopathology

1

48 hours after performing tuberculin test (Mantoux test) to a child a 10 mm papule appeared on the spot of tuberculin introduction. What hypersensitivity mechanism underlies these changes?

- A** Cellular cytotoxicity
- B** Anaphylaxis
- C** Antibody-dependent cytotoxicity
- D** Immune complex cytotoxicity
- E** Granulomatosis

2

A female patient suffering from bronchial asthma had got a viral infection that provoked status asthmaticus with fatal outcome. Histological examination of lungs revealed spasm and edema of bronchioles, apparent infiltration of their walls with lymphocytes, eosinophils and other leukocytes; labrocyte degranulation. What mechanism of hypersensitivity underlies the described alterations?

- A** Reagin reaction
- B** Inflammatory
- C** Autoimmune
- D** Immune complex
- E** Immune cytolysis

3

Local lymphonodules enlarged near the infected wound. Increased amount of macrophages, lymphocytes, lymphatic follicles in the cortical layer and large amount of plasma cells were revealed on histological examination. What process in the lymphatic nodules represent these histological changes?

- A** Antigen stimulation
- B** Acquired insufficiency of the lymphoid tissue
- C** Innate insufficiency of the lymphoid tissue

D Tumour transformation

E Hypersensitivity reaction

4

Tuberculin was injected intracutaneously to the child for tuberculin test. Marked hyperemia, tissue infiltration developed on the place of injection in 24 hours. What mechanism caused these modifications?

A Cells cytotoxicity

B Reagin type cytotoxicity

C Antibody cytotoxicity

D Granuloma formation

E Immunocomplex cytotoxicity

5

An experimental animal was first sensitized whereupon an antigen dose was introduced subcutaneously. This injection resulted in the development of a fibrinous inflammation with alteration of vessel walls, basal substance and fibrous structures of connective tissue in form of mucoid and fibrinoid swelling and necrosis. What immunological reaction took place?

A Immediate hypersensitivity

B Delayed-type hypersensitivity

C Reaction of transplantation immunity

D Normergic reaction

E Granulomatosis

6

A 30 year old woman has applied a lipstick with a fluorescent substance for a long time. Then she got a limited erythema and slight peeling on her lip border, later there appeared transversal striae and cracks. Special methods of microscopic examination of the affected area helped to reveal sensitized lymphocytes and macrophages in the connective tissue; cytolysis. What type of immunological hypersensitivity was developed?

A IV type (cellular cytotoxicity)

B I type (reaginic)

C II type (antibody cytotoxicity)

D III type (immune complex cytotoxicity)

E Granulomatosis

7

A 50 year old man who was referred to the hospital for treatment of cervical lymphadenitis underwent test for individual sensitivity to penicillin. 30 seconds after he went hot all over, AP dropped down to 0 mm Hg that led to cardiac arrest. Resuscitation was unsuccessful.

Autopsy results: acute venous plethora of internal organs; histological examination of skin (from the site of injection) revealed degranulation of mast cells (tissue basophils).

Degranulation was also revealed in myocardium and lungs. What type of hypersensitivity reaction is it?

A Anaphylactic

B Delayed-type hypersensitivity

C Complement-mediated cytotoxic

D Immunocomplex-mediated

E -

8

The patient, 70 years old, was admitted to the Thoracic Department with a diagnosis of lung abscess, with

growing phenomena of heart failure died. At autopsy found that mediastinal lymph nodes enlarged juicy, pink and red.

The spleen is enlarged, flabby, with abundant pulp scraping. than one explain changes in the spleen and lymph nodes?

A * Reactive hyperplasia

B compensatory hyperplasia

C Hormonal hyperplasia

D venous stasis

E purulent inflammation in the lymph nodes and spleen

9

When needle biopsy of the transplanted kidney stroma revealed diffuse infiltration of lymphocytes, plasmocytes, lymphoblasts, plasmoblasty and necrotizing arteritis. The pathological process developed in the graft?

A * immune rejection

B Glomerulonephritis

C Ischemic kidney damage

D tubulonekroz

E pyelonephritis

10

Infected wounds have increased regional lymph nodes. Histologically they showed an increase in the number of macrophages, lymphocytes and lymphatic follicles in the cortex, as well as a large number of plasma cells. The process in the lymph nodes revealed histological changes reflect?

A * antigenic stimulation

B acquired deficiency of lymphoid tissue

C congenital deficiency of lymphoid tissue

D malignant transformation

E hypersensitivity reactions