BRONCHIAL ASTHMA

Simple choice tests

CS

1. Choose the class of immune cells that plays principal role in the pathogenesis of bronchial asthma:
   A. Lymphocytes
   B. Endothelial cells
   C. Eosinophils
   D. Monocytes
   E. Fibroblasts

CS

2. Choose the class of immunoglobulins that is involved in the pathogenesis of atopic (allergic) bronchial asthma in children:
   A. Immunoglobulin A
   B. Immunoglobulin D
   C. Immunoglobulin E
   D. Immunoglobulin M
   E. Immunoglobulin G

CS

3. Choose main pathogenetic mechanism in childhood asthma development:

A. Inflammation of bronchial mucous membrane of allergic etiology
B. Inflammation of bronchial mucous membrane of viral etiology
C. Inflammation of bronchial mucous membrane of bacterial etiology
D. Autoimmune inflammation of bronchial mucous membrane
E. Inflammation of bronchial mucous membrane of fungal etiology

CS

4. Choose the pathogenetic mechanism of bronchial hyperreactivity development in children with bronchial asthma:
   A. The block of β2-adrenoreceptors
   B. Morphological lesions of the bronchial wall
   C. Immunopathological lesions of the bronchial wall
   D. Functional changes of the bronchial wall
   E. Infections lesions of the bronchial wall

CS

5. Choose the local effect of histamine that <u>is not characteristic</u> for atopic (allergic) bronchial asthma:
   A. Increased permeability of blood capillaries
   B. Increased mucus secretion
   C. Bronchodilation
   D. Bronchoconstriction
   E. Swelling of the bronchial mucous membrane

CS

6. Choose the clinical sign that <u>is not characteristic</u> for children with bronchial asthma exacerbation:
   A. Spasmodic cough with white sputum
   B. Expiratory dyspnea
   C. Agitation of the child, anxiety, headache
   D. Inspiratory dyspnea
   E. Dyspnea and cough develop mostly in the night

CS

7. Choose the factor that blocks beta2- adrenoreceptors in childhood asthma:

A. Accumulation of calcium in cytoplasm
B. Activation of leukotrienes synthesis
C. Activation of cytokines synthesis
D. Increased synthesis of inflammatory mediators
E. Decreased synthesis of inflammatory mediators

CS

8. Choose the most efficient way to administer sodium cromoglycate in children with bronchial asthma:
A. Intravenous
B. Submuscular
C. Intramuscular
D. Inhalatory
E. Per os

CS

9. Choose the principal pathogenetic mechanism in atopic (allergic) bronchial asthma development in children:
A. Viral infection
B. Effect of some chemical substances
C. Genetic factors
D. Bacterial infection
E. Mixed infection (viral and bacterial)

CS

10. Choose the effect of mast cell stabilizing drugs in the treatment of childhood asthma:
A. Prevent the release of allergic reaction mediators
B. Block beta2-adrenoreceptors in the bronchial wall
C. Decrease bronchial hyperreactivity
D. Increase bronchial hyperreactivity
E. Allow to decrease the dose adrenomimetic drugs

CS

11. Choose the pathogenetic manifestation that is <u>not characteristic</u> for childhood asthma:
A. Spasm of bronchial smooth muscles
B. Swelling of the bronchial mucous membrane
C. Mucus hypersecretion
D. Bronchocontriction
E. Laryngeal spasm

CS

12. Choose the group of drugs that is <u>not indicated</u> for anti-inflammatory treatment of childhood asthma:
A. Nonsteroidal anti-inflammatory drugs
B. Inhaled corticosteroids
C. Antileukotriene drugs
D. Sodium cromoglycate
E. Nedocromil sodium

CS

13. Choose the group of drugs that frequently exacerbate asthma in children:
A. Aspirin
B. Corticosteroids
C. Antihistamines
D. Theophylline
E. Antileukotriene drugs

CS

14. Choose the form of childhood asthma evolution:

A. Acute
B. Chronic
C. Trenant
D. Fulminant
E. Subacute

CS

15. Choose the class of immunoglobulins that is involved in the pathogenesis of non-atopic (non-allergic) bronchial asthma in children:

A. Immunoglobulin A
B. Immunoglobulin M
C. Immunoglobulin G
D. Immunoglobulin E
E. Immune complexes

CS

16. Choose the test used for daily assessment of bronchial variability in childhood asthma:

A. ECG
B. Cardiointervalography
C. Peak expiratory flow rate measurment
D. Chest X-ray
E. Echocardiography

CS

17. Choose the biomarker of allergic inflammation in sputum of children with bronchial asthma:

A. Increased eosinophil count
B. Increased leukocyte count
C. Increased neutrophil count
D. Increased monocyte count
E. Thrombocytopenia

CS

18. Choose the sputum biomarker that is characteristic for bronchial asthma:

A. Nitric oxide
B. Carbon monoxide
C. Sodium bicarbonate
D. Sodium carbonate
E. Potassium

CS

19. Choose the principal aim of childhood asthma treatment in children:

A. To obtain and maintain the control of clinical manifestation of the disease
B. Treatment of any infection sites
C. Treatment of associated diseases
D. Improvement of nasal breathing
E. Improvement of blood microcirculation

Multiple choice tests

CM

1. Enumerate pathogenetic mechanisms in childhood bronchial asthma:
   A. Bronchial hyperresponsiveness
   B. Activation of leukotrienes synthesis
   C. Activation of cytokines synthesis
   D. Decreased synthesis of inflammatory mediators

E. Increased synthesis of inflammatory mediators

CM

2. Enumerate diagnostic criteria for bronchial asthma in children:
   A. Genetic predisposition
   B. Repeated episodes of bronchial obstruction
   C. Increased level of Ig E
   D. Spirometry results show obstructive changes of small bronchi
   E. Spirometry results show restrictive ventilatory patten

CM

3. Enumerate diseases that must be differentiated from bronchial asthma in children:
   A. Foreign body aspiration
   B. Cardiac asthma
   C. Cystic fibrosis
   D. Acute pneumonia
   E. Obstructive bronchitis

CM

4. Enumerate therapeutic indications for inhaled corticosteroids in children with bronchial asthma:
   A. Exacerbation once a month
   B. Lack of therapeutic effect
   C. Asthma attacks every day
   D. Asthma attacks after physical effort
   E. Nocturnal asthma attacks every night

CM

5. Enumerate clinical symptoms characteristic for status asthmaticus in children:
   A. Duration of wheezing longer than 6 hours
   B. Neurologic manifestations
   C. “Silent chest” symptom, cough disappearance
   D. Dyspnea resolves in 4 hours after treatment initiation
   E. On chest auscultation – harsh breathing, prolonged expiratory phase of breathing, crackles (rales)

CM

6. Enumerate complains characteristic for bronchial asthma in children:
   A. Attacks of frequent cough
   B. Dyspnea attacks
   C. Skin itching
   D. Prolonged expiratory phase of breathing
   E. Sneezing

CM

7. Enumerate criteria of severity in childhood asthma:
   A. Frequency of dyspnea attacks
   B. Manifestations and duration of attacks
   C. Frequency of acute respiratory viral infections
   D. Frequency of nocturnal attacks
   E. Tolerance to physical effort

CM

8. Enumerate causes of status asthmaticus development in children:
   A. Non-compliance and cessation of treatment with inhaled corticosteroids
   B. Use of antihistamines
   C. Uncontrolled and prolonged use of adrenomimetics
   D. Exacerbation of inflammatory processes in lungs
   E. Administration of the treatment with inhaled corticosteroids

CM

9. Enumerate pathogenetic mechanisms that are characteristic for bronchial asthma in children:
   A. Reversible obstruction of airways
   B. The disease is due to bronchial hyperreactivity
   C. The onset of the disease is mostly in infancy
   D. It is a chronic inflammation of airways
   E. Inhalations of sympathomimetic drugs (ex. epinephrine) are effective

CM

10. Enumerate risk factors for childhood asthma:
   A. Genetic predisposition
   B. Frequent respiratory infections with uncontrolled antibiotherapy
   C. Atopic dermatitis in the first years of life
   D. No history of allergic diseases in relatives
   E. Autonomic nervous system dysfunction

CM

11. Enumerate recommended diagnostic tests for asthma in school age children:
   A. Serum level of IgE (total and allergen-specific)
   B. Abdomen radiograph
   C. Assessment of the level of circulating immune complexes
   D. Sputum examination
   E. Spirography

CM

12. Enumerate side effects of theophylline in asthmatic children:

A. Vomiting, nausea, diarrhea
B. Tachycardia, blood hypotension, heart rhythm disorders
C. Cough, sneezing
D. Headache
E. Itching of the skin

CM

13. Enumerate symptoms characteristic for “Aspirin triad”:
   A. Dyspnea attacks
   B. Skin itching
   C. Adenoids
   D. Chronic rhinosinusitis, complicated by polyps
   E. Urticaria

CM

14. Enumerate immediate complications of bronchial asthma in children:
   A. Status asthmaticus
   B. Chronic heart failure
   C. Spontaneous pneumothorax
   D. Subcutaneous mediastinal emphysema
   E. Segmental atelectasis

CM

15. Enumerate stages of status asthmaticus in children:

A. Relative compensation
B. Absolute compensation
C. Decompensation
D. Fulminant hypoxic coma
E. Slowly evolving hypoxic coma

CM

16. Enumerate food allergens that more frequently trigger asthma attack in children:

A. Eggs
B. Citrus fruits
C. Fish and sea food
D. Pea nuts
E. Corn

CM

17. Enumerate aeroallergens that more frequently trigger asthma attack in children:
A. House dust
B. Molds
C. Pollen
D. Tobacco smoke
E. Oxygen

CM

18. Enumerate risk factors for asthma development in early childhood:
A. Acute respiratory viral infections
B. Bronchial asthma in parents
C. Atopic dermatitis
D. Allergic rhinitis
E. Food allergy

CM

19. Classification of asthma include following forms of severity:
A. Atopic (allergic) asthma
B. Intermittent asthma
C. Moderate persistent asthma
D. Mild persistent asthma
E. Severe persistent asthma

CM

20. Enumerate levels of control of bronchial asthma in children:
A. Totally controlled asthma
B. Partially controlled asthma
C. Uncontrolled asthma
D. Absence of asthma attacks
E. Nocturnal asthma attacks

CM

21. Enumerate late complications of bronchial asthma in children:
A. Bronchial superinfection
B. Frequent pneumonia episodes
C. Chronic heart failure
D. Neurologic disorders
E. Iatrogenic complications

CM

22. Enumerate severity criteria for asthma attacks in children:
A. Frequency of asthma attacks
B. Nocturnal asthma attacks
C. Functional pulmonary testing
D. Allergy tests
E. Functional examination of the urinary tract

CM

23. Enumerate major criteria for asthma diagnosis in children under 5 years of age:
A. Female gender
B. Three episodes of wheezing in the past 6 months
C. Atopic dermatitis

D. Asthma history in one of parents
E. Increased sensitivity to aeroallergens

CM

24. Enumerate characteristic findings of sputum test in patients with atopic (allergic) asthma:
A. Increased eosinophil count
B. Charcot-Leyden crystals
C. Platelet count
D. Curschmann's spirals
E. Increased leukocyte count

CM

25. Enumerate minor criteria for asthma diagnosis in children under 5 years of age:
A. Running nose in the absence of signs of respiratory infection
B. Wheezing in the absence of signs of respiratory infection
C. Eosinophil count
D. Food allergy
E. Acute respiratory infection

CM

26. Enumerate diseases that have to be differentiated from bronchial asthma in children:
A. Gastroesophageal reflux
B. Tuberculosis
C. Bronchiectasis
D. Laryngotracheobronchitis
E. Cardiac asthma

CM

27. Enumerate therapeutic indications for emergency treatment of bronchial asthma attack:
A. Short acting beta2-agonists
B. Theophylline
C. Anticholinergic drugs
D. Systemic corticosteroids
E. Antileukotriene drugs

CM

28. Enumerate anticholinergic drugs indicated for treatment of bronchial asthma attack:
A. Ipratropium bromide
B. Theophylline
C. Oxytopirine bromid
D. Tiotrapium bromid
E. Magnesium sulfate

CM

29. Enumerate therapeutic effects of systemic corticosteroids in childhood asthma:
A. Decrease the inflammation of the bronchial mucous membrane
B. Stimulate the inflammation of the bronchial mucous membrane
C. Reestablish adrenoreceptors sensitivity
D. Increase adrenoreceptors sensitivity
E. Inhibit reflexes mediated by vagus nerve

CM

30. Enumerate therapeutic effects of short-acting theophylline drug in childhood asthma:
A. Marked bronchodilation effect
B. Inhibts early and late phases of allergic reactions
C. Protects blonchial mucous membrane
D. Anti-inflammatory effect
E. Enhance bronchial inflammation

CM

31. Enumerate therapeutic indications for emergency treatment of bronchial asthma attack:
A. Oxygen
B. Short acting beta2-agonists (Salbutamol)
C. Systemic corticosteroids
D. Theophylline
E. Antibiotics

CM

32. Enumerate controller medications in childhood asthma:
A. Nonsteroidal anti-inflammatory drugs
B. Topical corticosteroids
C. Antileukotriene drugs
D. Cromones (cromoglycate and nedocromil sodium)
E. Theophylline-retard

CM

33. Enumerate therapeutic effects of antileukotriene drugs in childhood asthma:
A. Inhibit leukotriene synthesis
B. Immunosuppressant effect
C. Block adhesion receptors
D. Improve bronchospasm triggered by physica effort or cold air
E. Inhibt early and late phases of allergic reactions

CM

34. Enumerate controller medication for bronchial asthma in children under 5 years of age:
A. Short acting beta2-agonists
B. Low doses of inhaled corticosteroids
C. Antileukotriene drugs
D. Low doses of inhaled corticosteroids + Antileukotriene drugs
E. Inhaled corticosteroids in a double dose

BRONCHIAL ASTHMA

Simple choice tests

1. C
2. C
3. A
4. A
5. C
6. D
7. A
8. D
9. C
10. A
11. E
12. A
13. B
14. B
15. E
16. C
17. A
18. A
19. A

Multiple choice tests

1. ABCE
2. ABCD
3. ACE
4. BCDE
5. ABC
6. ABDE
7. ABDE
8. ACD
9. ABDE
10. A,B,C,E
11. ACDE
12. ABCD
13. ABC
14. ACDE
15. ACDE
16. ABCD
17. ABCD
18. BCDE
19. BCDE
20. ABC
21. ABE
22. ABC
23. BCDE
24. ABD
25. ABCD
26. ABCD
27. ABCD
28. ACD
29. AC
30. ABCD
31. ABCD
32. BCDE
33. ACDE
34. AB