ACUTE PHASE RESPONSE, FEVER, AND HYPERTHERMIA

Questions for test-control

1**. Acute phase response is characterized by:**

1.increased albumin synthesizing in the liver
2.active ACTH elaboration by the pituitary gland
3..immune system promotion
4. activation of phagocytosis
5.increased transferrin synthesis in the liver

2. Characteristic features of an acute phase response are:

1. neutropenia
2.hypoalbuminemia
3.fever
4. positive nitrogen balance
5. hypercortisolism

3. Which symptoms are characteristic of an acute phase response?

1.neutrophilia
2.increased level of serum iron
3.negative nitrogen balance
4.hyperlipidemia
5.hyperalbuminemia

4**.Which effects are predominately promoted by IL-6 ?**

1.fever
2.loss of weight
3.increasing in acute phase response proteins synthesizing by the liver
4.increasing in ACTH production by the pituitary gland
5.high cell mitogen activity

5. Acute phase response is strongly associated with high production by the liver the following substances:

1.fibrinogen
2.C-reactive protein
3.alpha1-antitrypsin
4.transferrin
5.serum albumin

6. Synthesis of IL-1 is promoted by:

1 IL-1
2.IL-2
3.bacterial lipopolysaccharides
4.TNFalpha
5.IL-6

7. Which of the listed below substances provides the fever and loss of weight undergo Il-1 and TNF-alpha?

1.PAF (platelet-activating factor)
2.LTC-4
3.PgE-2
4.TXA-2

8. Which of the cytokines are responsible for neutrophilia development?

1.IL-1
2.IL-2
3.IL-6
4.CSF-G,
5.CSF-GM

9**. Synthesis of acute phase response proteins by the liver mostly is stimulated by:**

1.Il-1
2.IL-2
3.IL-6
4.IL-8
5.TNF-alpha

10**.Point to the pro -inflammatory effects of IL-1:**

1.activation of macrophages and neutrophils
2,inhibition of adhesion molecules expression both on the leukocytes and endothelium
3.synthesis of PgE2 in the synovial liquor of the joints
4.inhibition of leukocyte chemotaxis
5.activation of T-and B-lymphocytes

11. Risk of thrombosis in an acute phase response may be explained by:

1.increasing in synthesizing of PgI-2 by the endotheliocytes
2.high blood level of fibrinogen
3.increased elaboration of FAT by the leukocytes and endothelium
4.high expression of adhesive proteins on the endothelial cells
5.activation of fibrinolytic system

12. Which of the assertions are true?

1.acute phase response is a local reaction of an organism to injury
2.acute phase response is a general reaction
3.in any case acute phase response is useful to organism
4.acute phase response is non-specific reaction to injury
5.acute phase response increases resistance of an organism to infection

13 **Which of .the following assertions are true:**

1.Il-1, TNF and IL-6 are polyvalent cytokines
2.Il-1, TNF and IL-6 possess by biologic species
3.IL-1 can induce TNF and IL-6 synthesizing
4.all effects of IL-1 are useful in course of an acute phase response
5.in high concentration the mediators of an acute phase response may cause a damage

14**. The main mediators of an acute phase response are:**

1.IL-I
2.IL-2
3.IL-8
4.TNF
5.IL-6

15. Point to the chemical structure of exogenous pyrogens:

1.phospholipids
2.lipopolysaccharides
3.proteins
4.mucopolysaccharides

16. Which of listed below substances may be classified as endogenous pyrogens:

1.Il-1
2.IL-2
3.cortisol
4.TNF
5.PgE-2

17. Substances potentially possessing by properties of endogenous pyrogens are:

1.complement components
2.Il-1
3.TNF
4.cyclooxigenase
5. histamine

18. Possible initiators of synthesis of endogenous pyrogens are:

1.biogenic amines
2.bacterial endotoxins
3.bacterial exotoxins
4.antigen-antibody complex
5. hormones

19 The major causes of endogenous hyperthermia are:

1.excessive production of thyroxin
2.burns
3.prolong staying in sauna
4.strong emotions
5.pyrogenal injection

20. Endogenous pyrogens influence the central thermoregulation evidently by the such way:

1.inrease the threshold of sensitivity of cold neurons
2.decreasing in the threshold of sensitivity of cold neurons
3.increase the threshold of sensitivity of heat neurons
4. decreasing in the threshold of sensitivity of heat neurons
5.doesn’t influence the central mechanisms of thermoregulation

21. Which of the following conditions could weaken the response to the pyrogen?

1.hypofunction of thyroid gland
2.spinal cord injury in the neck part
3.aging
4.puberty
5.early postnatal period

22. The mechanisms of arise in temperature at the first stage of fever likely the following:

1.shift of temperature set point to increased level
2.increased threshold of sensitivity of central cold neurons
3.increased threshold of sensitivity of central heat neurons
4.sympathetic tone activation
5.parasympathetic tone activation

23. An arise in temperature during a fever depends on the following factors:

1.exogenous pyrogen concentration in tissue and blood
2.therm-protective properties of cloth
3.sensitivity of central thermoregulation neurons to the pyrogens
4.temperature of surrounding
5.activity of the cytokine-producing cells

24. Characteristic features of the first stage of the fever are:

1.breakdown of thermoregulation
2.decreasing in heat dissipation
3.intensive heat dissipation
4.surrouning temperature dependence
5.temperature hypothalamic set point shift to the elevated level

25. Exogenious hyperthermia is characterized by:

1.increased dissipation of heat
2.decreased dissipation of heat
3.disturbances in thermoregulation
4.depend of body temperature on surroundings
5.shift of temperature set point to elevated level

26. First stage of fever is characterized by

1.shiver
2.sense of hot
3.skin dryness
4.skin paleness
5.skin hyperemia

27.Second stage of fever is characterized by::

1.shiver
2.sense of hot
3.skin dryness
4.skin paleness
5.skin hyperemia

The second level

28. Which cells can secrete IL-1?

29. List the cells, which can secrete TNF

30. Which cells can produce IL-6

31. List the symptoms, which are the consequences of activated central nervous system during acute phase response

32. Which factors can stimulate the production of IL-1?

33. The main mechanisms of increased organism resistance during APR are.....

34. The main mechanisms of decrease of body mass during APR are.....

35. Explain the mechanisms of resorption of bone and chondral tissue