PATHOLOGY

بسم الله الرحمن الرحيم

Past Papers

- inflammation

﴿ وَإِن تَتَوَلَّوْا يَسْتَبْدِلْ قَوْمًا غَيْرَكُمْ ثُمَّ لَا يَكُونُوا أَمْثَالَكُم ﴾

اللهم استعملنا ولا تستبدلنا

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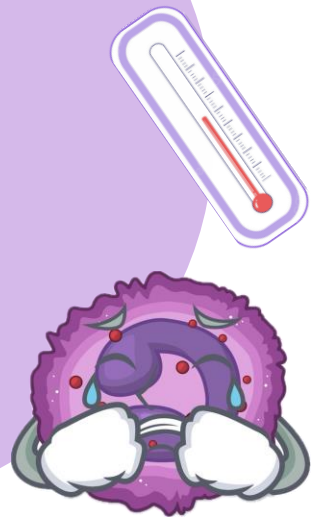


A biopsy was taken from a patient, and it was not cancer. Instead, they found out that it was chronic inflammation, what did they see?

A. Fibrosis, Macrophages, Lymphocytes, Plasma cells
B. Neutrophils and Macrophages
C. Eosinophils
D. Histamine and Heparin

Ans:A

IL-17 is mainly responsible for:

A. Neutrophil Recruitment
B.Macrophage Maturation
C.T cells Maturation
D.Eosinophil Recruitment

Ans: A

A specimen with granuloma and caseous necrosis, which of the following is correct?

A. It is an acute inflammation
B. Using acid-fast stain most likely won't do anything
C. You should rule out tuberculosis
D. It is probably of unknown Etiology

Ans:c

Rule out here means that **tuberculosis is a strong possibility that needs to be either confirmed or eliminated through further testing.

Which of the following is true regarding toll-like receptors?

A. They circulate in blood
B.Collectines are examples
C.They are essential for chemotaxis
D.They recognize PAMPs

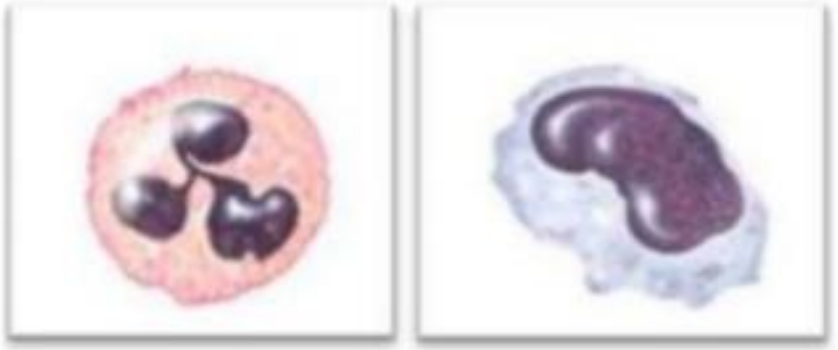
Ans:d

Which of the following is true regarding inflammation?

A. It is essential for body survival
B.Strong inflammatory responses are always good
C.Non-vascularized tissue can get inflammation
D.There is no repair step in inflammation

Ans:A

Which of the following statements is true regarding these pictures:



A.The cell on the left is a monocyte
B.The cell on the left has a half-life of 1-2 days
C.The cell on the right is a neutrophil
D.Both cells have the same half-life

Ans:b

Which of the following statements is true regarding steroids:

A. They are potent inhibitors of phospholipases
B. They are inhibitors of COX-1
C.They induce immunity
D.They are considered as Pro-inflammatory drugs

Ans: A

Which of the following is considered an anaphylatoxin:

A. C5a
B.C3b
C.IgG
D.NO

Ans: A

TNF is a

A. Chemokine
B.Lipid
C.Complement protein
D.Cytokine

Ans:d

Which of the following cells and molecules are involved in asthma?

A. IgE and eosinophils
B. Cytokines
C. Macrophages and neutrophils
D. Complement proteins

Ans:a

Which of the following is true regarding chemokines?

A. C3a is an example
B.Factor H is an inhibitor
C.They are involved in opsonization
D.They have GPCRs

Ans:d

Stasis and Erythema are caused by:

A. Leukocytes
B.Expression of selectins
C.PMN accumulation
D.Histamine as a vasodilator

Ans:d

A patient is present with a red and swollen appendix and had to undergo appendectomy. No considerable number of lymphocytes is found. Which of the following is correct?

A. It is a chronic appendicitis
B. Transudate fluid is found
C. It is a purulent suppurative inflammation
D. None of the above is correct

Ans:c

Rule out answers: Cant be chronic- no lymphocytes, Cant be transudate- transudate isnt severe and would require an appendecetomy, it's red/swollen/severe-exudate/purulent

Which of the following are pain mediators?

A. Chemokines
B.Prostaglandins and bradykinin
C.Histamine
D.Platelet-activating factor

Ans:b

Weak adhesion to the endothelium is mediated by:

A. LFA-1
B.Integrins
C.P and E selectins
D.PECAM-1

Ans:c

Which of the following is true regarding Nitric Oxide:

A. Acts as a vasoconstrictor
B.Produced without the need of enzymes
C.A soluble gas derived from arginine
D.Its concentration is always constant

Ans:c

Acute phase proteins are best described as:

A. Their levels are used to diagnose prolonged chronic inflammation
B. C-reactive protein is the only example
C. Specific indicators of certain diseases
D. Non-specific indicator of acute inflammation

Ans:d

What causes effusion of fluids in the first stages of vascular phase?

A. Endothelial injury
B. Leukocytes recruitment
C. Retraction of endothelium via mediators
D. Margination

Ans:c

Which of the following is true regarding M2 pathway :

A. Its also called the classical pathway
B. Its activated by the presence of microbes
C. It stops inflammation and promotes repair
D. Macrophages start producing IL-1 and chemokines

Ans:c

A liver biopsy showed that a patient has a noncaseating granuloma. Which of the following can cause this condition:

A. Tuberculosis
B. Sarcoidosis
C. Syphilis
D. Asthma

Ans:b

Which one of the following histopathological findings would be most consistent with Sarcoidosis?

a. Serous transudative inflammation
b. Non-necrotizing granulomatous inflammation
c. Suppurative exudative inflammation
d. Ulcerative inflammation
e. Necrotizing granulomatous inflammation

Ans:b

Mediator of the initial inflammatory response:

a. Selectins
b. TLR
c. IL-10
d. Collagen

Ans:b

A hunter is present with skin rash after direct contact with mushroom. Tests show that no microorganisms are involved but show also a huge number of IgE and mast cells. What is the right diagnosis?

a. Parasitic infection
b. Bacterial infection
c. Autoimmune disease
d. Acute allergic reaction

Ans:d

A tissue biopsy from the colon for one of your patients who suffered from diarrhea was taken. The pathologist calls you and is worried about a parasitic infestation. The most likely inflammatory cellular infiltrate that he observed would be:

a. Lymphocytes
b. Plasma cells
c. Eosinophils
d. Macrophages
e. Eosinophils, fibroblasts, and tissue macrophages

Ans:c

A child was brought to the emergency room with sore throat. The Tonsils are red and congested, and he was febrile (Temp: 39.8 °C). Which mediator(s) is/are responsible for these 3 inflammatory features?

a. Prostaglandins
b. Interleukins
c. Leukotrienes
d. Bradykinin
e. Complement system proteins

Ans:b

A 23-year-old female patient with chronic history of bronchial asthma who underwent removal of polyps from nose. The tissue examination revealed benign polyp with numerous numbers of eosinophils (hundreds). The pathologic explanation for this finding is?

a. Allergic reaction/polyp
b. Acute parasitic inflammation
c. Chronic fibrinous inflammation
d. Eosinophilic granulomatous inflammation
e. Acute suppurative inflammation

Ans:a

The pathologist calls you to let you know that your patient tissue biopsy revealed the presence of "necrotizing granulomatous inflammation." What would be the most important question to ask the pathologist?

a. Was there any atypical mitosis?
b. Were there asteroid bodies in the granulomas?
c. Were the granulomas large or small?
d. Was there an increase in the number of plasma cells?
e. Did you do acid-fast stain (tuberculosis stain)

Ans:e

In the cellular phase of inflammatory response, the later strong adhesion of leukocytes to endothelium is mediated by:

A. Integrin (ICAM-1)
B. CD31 (PECAM-1)
C. P and E Selectins
D. Interleukins and Tumor necrosis factor (ILs and TNF)

Ans:a

The strong anti-inflammatory action of steroids is mediated by:

A. Stimulation of histamine production
B. Stimulation of lipoxygenase enzyme
C. Inhibition of cyclooxygenase-1 (Cox-1)
D. Inhibition of phagocytosis
E. Inhibition of phospholipase leading to decreased production of leukotrienes and prostaglandins

Ans:e

The process of coating microbes to enhance their phagocytosis is defined as:

A. Apoptosis
B.Opsonization
C.Diapedesis
D.Effective Phagocytosis
E.Transmigration

Ans:b

Which one of the following mediators is implicated in pathogenesis of ischemic heart disease and brain strokes?

A. Prostaglandin C4
B.Leukotriene B4
C.Leukotriene E4
D.Prostaglandin E4
E.Thrombaxane A2

Ans:e

Which one of the following serum markers that we usually measure to indicate the presence of non-specific inflammatory reaction?

A. Liver transaminases
B. Anti-nuclear antibodies
C. C-reactive protein
D. Prostaglandins C, D and E
E. Tumor necrosis factor

Ans:c

Which of the following statements best describes the "inflammatory response"?

A. In normal humans it is protective
B. Always associated with systemic effects
C. Transforms to chronic inflammation in 50% of the cases
D. Events sequence is haphazard in 20% of the cases
E. Its mediators are the same in amount

Ans:a

This is a cartoon image representing an important inflammatory cell. Which of the following statements best describes this cell feature or function?

A. It contains high level of nitric oxide
B. This cell secretes neutrophil extracellular traps (NET)
C. The life span is 5-6 days
D. This cell is a major producer of cytokines mediators
E. It is a major chronic inflammatory cell infiltrate

Ans:b

It's a neutrophil (multi-lobed)> all neutrophils make NETs after they die

Which of the following mediators is a cytokine produced by macrophages?

A. Bradykinin
B.Prostaglandin E
C.Histamine
D.TNF
E.Thromboxane A2

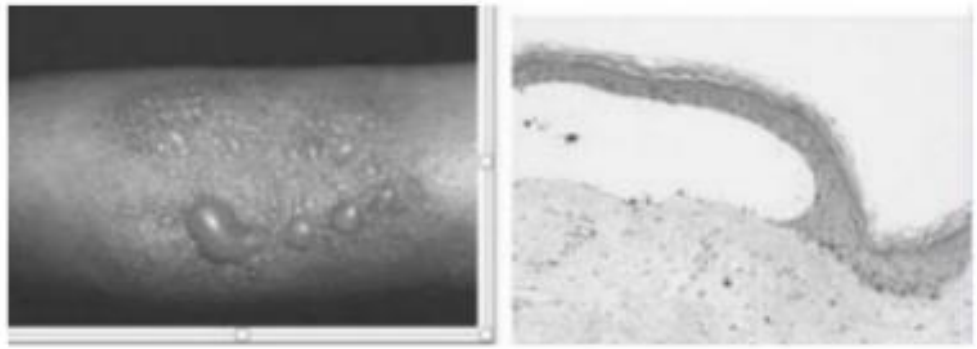
Ans:d

A 49-year-old male patient came with recent non-intentional weight loss, fever and lymphadenopathy. A lymph node biopsy showed multiple necrotizing granulomas. The top differential diagnosis should be:

A. Sarcoidosis
B. Non-specific chronic inflammation
C. Viral lymphadenitis
D. Tuberculous lymphadenitis
E. Autoimmune necrotizing lymphadenitis

Ans:c

Below is a picture of a hand and its pathologic microscopic image. The best description of this reaction is?



A. Ulcerative inflammation
B. Fibrinous inflammation
C. Suppurative inflammation
D. Serous inflammation

Ans:d

Which one of the following statements is correct:

A. Curve A represents the macrophages and lymphocytes cellular infiltration phase
B. Curve B represents the initial neutrophilic infiltration phase
C. Curve A represents the initial cellular phase
D. Curve C represents the initial edematous phase
E. Curve B represents the initial vascular phase

Ans:b

Which one of the following best describes the vascular leakage in the early vascular phase of acute inflammation?

A. It is an early phase due to retraction of endothelial cells
B. It is due to increased intravascular oncotic pressure
C. It is due to direct endothelial cell injury by adhering neutrophils
D. The process is best called transcytosis induced by growth factors
E. It is mediated by blockage of the lymphatic channels

Ans:a

Which receptors are responsible for recognizing pathogen proteins in the initial phases of inflammation?

A. Receptors for lectins and collectins
B. Receptors for circulating complement system proteins
C. Toll-like receptors
D. Receptors for immunoglobulins E (IgE)
E. Receptors for damage associated molecular patterns (DAMPs)

Ans:c

The major function of the alternatively activated macrophage (M2) is

A. Inhibition of inflammation & activation of repair
B. Bacterial Recognition
C. NO production
D. Activation and stimulation of viral intracellular killing
E. Opsonization and phagocytosis

Ans:a

Opsonization is best described as :

A. Recognizing the pathogen
B.Coating the microbe to enhance phagocytosis
C.Following a specific chemical gradient
D.Activation of the complement system

Ans:b

After removal of the appendix for a patient; the pathology report came back with "acute appendicitis". What did the pathologist most likely see under microscopic examination?

A. Atypical glands with abnormal mitosis
B. Loss of appendicular architecture and granulomas
C. Numerous eosinophils,
D. Fibrosis and numerous lymphocytes
E. Numerous tissue neutrophils

Ans:e

Which of the following arachidonic acid metabolites is a strong chemotactic agent?

A. Leukotriene E4
B. Leukotriene B4
C. Leukotriene C4
D. Prostacyclin
E.Prostaglandin G2

Ans:b

Which of the following is a product of lipoxygenase enzyme:

A. Prostacyclin
B. Histamine
C. Leukotriene C4
D. IL-6

Ans:c

Mediator of the inflammatory response:

A. Selectins
B. TLR
C. IL-10
D. Collagen

Ans:b

Which of the following is true regarding M2 Pathway?

A. It is also called the classical pathway
B.It is activated by the presence of microbes
C.It stops inflammation and promotes repair
D.Macrophages start producing IL-1 & chemokines

Ans:c

Which of the following cells is seen in acute allergic reactions:

A. Macropahges
B. Eosinophils
C. Neutrophils
D. Lymphocytes

Ans: b

The correct order of leukocyte migration is :

A. Margination,Rolling,Adhesion,Transmigration
B. Rolling,Margination,Adhesion,Transmigration
C. Transmigration,Adhesion,Margination,Rolling
D. Rolling,Adhesion,Transmigration,Margination

Ans: a

Which part of complement system works as an opsonin:

A. C3a
B. C5a
C. C3b
D. C9

Ans: c

What enzyme does aspirin inhibit:

A. Lipoxygenase
B. Cyclooxygenase
C. Phospholipase A
D. Phospholipids

Ans: b

Pus is best described as:

A. Found always inside an abscess
B. Caused by imbalances in oncotic pressure
C. Purulent exudate
D. Caused by viral infection

Ans: c

What is the mechanism of transudative effusion in congestive heart failure:

A. Incread in hydrostatic pressure
B. Decreased oncotic pressure
C. Retraction of endothelial cells
D. Transmigration of

Ans: a

Acute asthma is characterized by the presence of :

A. IgA antibodies
B. IgE antibodies
C. IgG antibodies
D. None of the above

Ans: b

One of the following cells has a phagocytic ability:

A. Eosinophils
B. T lymphocytes
C. Mast cells
D. Neutrophils

Ans: d

The main mediator in fever is:

A. Thromboxane A2
B. Prostaglandin E2
C. NO
D. Leukotriene E4

Ans: b

Which complement protein works as a chemattractant :

A. C4
B. C3b
C. MAC
D. C5a

Ans: d

One of the following is considered a feature of acute inflammation:

a- It is mediated by lymphocytes

b- It has a slow onset

c- It has prominent signs

d- It is always severe and progressive

e- It has no signs and symptoms

Ans:c

This image represents:

a -Deep ulcer with atherosclerosis

b-nonhealing gangrene with fungal infection

c- Wo u n d dehiscence

d- Inflamed leg with dilated blood vessels

Ans:a

The main facilitator of congestion and vascular dilation in the early phase of inflammation:

A. Histamine
B. CD31
C. TNF
D. IL-6
E. Macropahges

Ans: a

M2 macrophages are responsible for which of the following?

a- inhibition of inflammation
b-promoting repair
c- secreting IL-10
d-All of the above

Ans: d

A patient suffers from a tender polyp in teeth with yellow liquid, the most accurate sentence is:

a- can be treated with antibiotics since it's a bacterial infection

b- inflammation with abscess

c- A defect o f the mucosal surface

d- Involves transudate fluid

Ans: b

-A patient with rheumatoid arthritis has been on steroids for a long time. He is suffering from shortness of breath and fever. X rays shows a bilateral lung infiltration, diagnosis of the case is:-

a opportunistic lung infection

b- Staphylococcal pneumonia

c- Asthma

d- squamous cell carcinoma

Ans:a

Which of the following is not a characteristic of exudative edema?

a- High protein content

b- High cell count

c- Low specific gravity

d- Full of cell debris

Ans: c

You are examining a 65 year old male patient with fever, malaise and shortness of breath. History denotes severe rheumatoid arthritis requiring long term high dosesteroid treatment chest. X-Ray shows bilateral lung infiltrates. What should you consider in this particular patient as an important differential diagnosis?

-a opportunistic lung infection

b- lung Abscess due to necrotizing inflammation

c- community acquired candida pneumonia

d- lobar pneumonia due to Haemophilus influenza infection

e - H I - N 1 influenza infection

Ans: a

A 53 year old male patient came to you with perianal pain, fever, and chills. He gavea history of anal fissures and hemorrhoids for the previous 2 years. On examination,you find a perianal swelling, ill-defined mass, which is tender to touch. you made the diagnosis of an abscess and you performed "incision and drainage". the wound afterthis procedure will heal by:

-a Healing by primary /first intention

b- This is a severe purulent inflammation /Abscess needing healing by granulation tissue (secondary intention)

c- Quick regeneration and re-epithelialization

d-Platelet plug scab

e- stem cells will be required and regeneration of lost tissue will follow

Ans: b

Which of the following is related to this finding:

a- Severe ischemia due to atherosclerosis

b- Friction burn of skin and subcutaneous tissue

c- radiation injury for squamous cell carcinoma of the leg

d- traumatic serous inflammation of the skin and subcutaneous tissue

e- varicose veins of lower limbs

Ans: a

Which of the following is an anti-inflammatory mediator?

a- IL-1

b-IL-17

c- TNF

d_ IL-10

Ans: d

Which of the following is a result of the lipoxygenase pathway?

a- Leukotriene C4

b- PGE2

c- Histamine

d- Prostacyclin

Ans: a

Which of the following is wrong regarding complement system?

A. It has multiple pathways of activation
B. Complement proteins are found intracellularly inside lysosomes
C. Complement proteins have different functions
D. Complement proteins can be found without inflammation

Ans: b

Which of the following is wrong about neutrophils?

A- They are never seen in chronic inflammation
b- Their half-life is 1-2 days
c- They have phagocytic abilities
d- They have multi-lobed nuclei

Ans:a

Which of the following is involved in the recruitment of smooth muscle cells in angiogenesis?

a-TNF

b-PDGF

c-TGF-B

d-All of the above

Ans:b

What type of inflammation is seen in blisters?

a- Purulent inflammation

b- Serous inflammation

c- Ulcerative inflammation

d- Fibrinoid inflammation

Ans:b

Which of the following is a common mediator in all complement pathways?

a- Lectins

b-IgG Antibodies

c- Mannose

d- C3

Ans:d

The first changes in vascular phase include:

a- Transient vasoconstriction then vasodilation

b- Margination of WBCs

c- Chemotaxis of cells towards side of inflammation

d- None of the above

Ans:a

-A patient comes with fever and right lower quadrant tenderness. Acute appendicitis is suspected. Which of the following is seen in his blood workup?

a- Neutrophils

b- lymphocytes

c- eosinophils

d- mast cells

Ans:a

The correct sequence of steps in inflammation:

a-Recruitment, recognition, controlling, removal, repair
b-Recognition, recruitment, removal, regulation, repair
c-Removal, regulation, repair, recognition, recruitment
d-Recruitment, repair, removal, recognition, controlling

Ans:b

Which of the following is seen in exudative fluids:

a- low proteins

b- low specificgravity

c- high cellularity

d- serous fluid

Ans:c

Which of the following is correct regarding granulomas?

-a They are full of epithelial cells

b- They indicate acute inflammation

c- Sarcoidosis is diagnosed by exclusion

d- If granuloma is caseating, don't think about TB

Ans:c

Induction of pain is mainly through:

a- Cytokines

b- Platelet activating factors

c- Leukotrienes

d- Kinins

Ans:d

Steroids work through:

-a Increasing prostaglandin

b- Inhibition of phospholipases

c- Inhibition of lipoxygenases

d- More than one of the above

Ans:b

The life span of neutrophils is:

a- 1-2 days

b-5-7 days

c- weeks to months

d- Fewhours

Ans:a

NETs are best described as:

-a Collections of granules containing hydrolysing enzymes

b- Viscous meshwork of nuclear chromatin

c- Produced after death of monocytes

d- Implicated in pathogenesis of asthma

Ans:b

-TNF is mainly produced by:

a- Endothelial cells

b- Eosinophils

c -macrophages and T-lymphocytes

d- Mast cells

Ans:c

Which of the following is a wrong mismatch?

a- macrophages/B cells interaction is bi-directional activation

b- NETs and neutrophils

c- IL-5andeosinophils

d- IgE and mast cells

Ans:a

-All of the following are involved in fever except:-

a TNF

b-CRP

c- IL-1

d- PGE2

Ans:b

Which of the following induce recruitment of neutrophils and macrophages in both chronic and acute inflammation?

a- I L - 1 0

b-IL-12

c- IL-17

d-IL-6

Ans:c

Which of the following cells live in the tissue for years?

a- Neutrophils

b- macrophages

c- Eosinophils

d- Basophils

Ans:b

All of the following are caused by activation of M2 macrophages by the alternative pathway except?

a- Woundrepair

b- Fibrosis

c- Anti-inflammatory effects

d-Phagocytosis

Ans:d

Which of the following mediator is responsible for erythema and stasis from blood vessels?

A-Histamine

B- Kinins

C-Leukotrienes

D-Reactive oxygen species (ROS)

Ans:a

What is the best definition of the inflammatory response?

a- always beneficial to the body

b- progressive and prominent signs and symptoms

c- response of vascularized tissue to injury

d- resolution of damage through fibrogenic factors

Ans:c

Which of the following is correct regarding mediators of inflammation?

a- They work independently from each other

b- All mediators are proteins

c- They arehard to control and suppress

d- They can activate each other

Ans:d

Which of the following is wrong regarding granulomas?

-a They indicate chronic inflammation

b- Causes can be infective or non-infective

c- Epithelioid histiocytes are recruited by B cells

d- Noneoftheabove iswrong

Ans:b

Mediators that are secreted by alternatively activated (M2) macrophages:

a- I L - 1 2

b-TNF, IL-1 and IL-6

c- IL-4 and IL-5

d- growth factors and IL-10

Ans:d

Complement proteins that are related to histamine include:

A. C3a
B. C5a
C. C3b
D. a+b

Ans: d

Receptors that recognize damaged DNA out of cells are:

A. Cell damage sensors

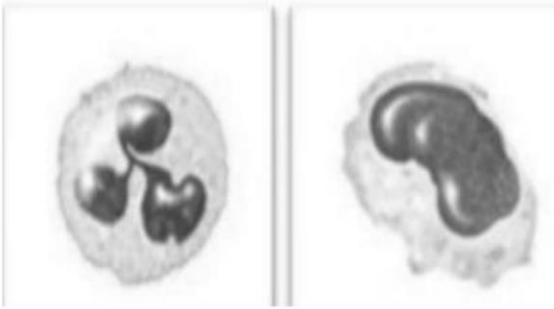
B. Toll-like receptors

C. Complement system

D. G-protein coupled receptor

Ans: a

These are two important cells of inflammation, which of the following best describes their function:



A. The cell on the left has a lifespan of 5-7 days
B. Both cells are capable of phagocytosis
C. The cell on the right exhibits NETosis
D. The cell on the left is a major cytokine producer
E. The cell on the right exhibits a more rapid response to stimulation

Ans: b

Which of the following is considered an autoimmune disease

A. Systemic lupus erythematosus
B. Acquired immune deficiency syndrome
C. Atherosclerosis
D. Asthma
E. None of the above

Ans: a

The correct combination of the mediators, source, effect respectively is:

A. Prostaglandins, leukocytes, vasoconstriction
B. Prostaglandins, activated macrophages, fever
C. Chemokines, mast cells, chemotaxis
D. Leukotrienes, mast cells, decreases vascular permeability
E. None of the above

Ans: c

Which of the following best describes Toll-like receptors:

A. Circulating plasma proteins that need activation

B. Sensor of DAMPs

C. GPCR

D. Membrane proteins that recognize pathogens

E. Receptor for toll-like injurious agents

Ans: d

The main facilitator of congestion and vascular dilation in the early phase of inflammation is:

A. Histamine
B. CD31
C. TNF
D. IL-6
E. Macrophages

Ans: a

What's true about inflammation

Answer: Its output differs depending on the host

Ans:

Which of the following enhances phagocytosis and killing:

A. Opsonizing agent
B. TNF
C. IL-1
D. TGF-B

Ans: a

After engulfing microbes in the phagosome, the next step is:

A. Fusion with lysosomes to form a phagolysosome
B. Degradation of the phagosome content
C. The endocytosis of the microbes
D. The exocytosis of the phagolysosome

Ans: a

Which of the following mediators is/are responsible for chronic asthma:

A. PCL2

B. TBA2

C. LTC4, LTD4, LTE4

D. TNF

E. All of the above

Ans: c

What mediators are responsible for fever

A. HistamineB
B. IL-1 and IL-6
C. Leukotrienes
D. IL-12
E. None of the above

Ans: b

A 6-year-old child was brought to your clinic with his parents complaining about difficulty and noisy breathing. A chest examination revealed severe wheezing. The parents mentioned that this is the second time this year. The child has no fever. The X-ray is unremarkable. The major injurious inflammatory cells and agents that cause this is/are:

A) Eosinophils and IgE agent

B) Necrotising granulomatous inflammation

C) Eosinophils and IgA agent

D) Neutrophils

Ans: a

Which of the following arachidonic acid metabolites is a strong chemotactic agent :

A. Leukotriene E4
B. Leukotriene B4
C.Leukotriene C4
D. Prostacyclin
E. Prostaglandin G2

Ans: b

Which of the following is true regarding Nitric Oxide :

A. Acts as a vasoconstricor
B. Produced without the need of enzymes
C. A soluble gas driver from arginine
D. Its concentration is always constant

Ans: c

A 29 year old man that was hospitalised for acquired immunodeficiency syndrome(AIDS) was found to have pulmonary tuberculosis. Which type of necrosis is found in the granulomatous lesions(clusters of modified macrophages)characteristic of this increasingly frequent.

A. Caseous
B. Coagulative
C. Fibrinoid
D. Liquefaction

Ans: a

Which one of the following serum markers do we usually measure to indicate the presence of a nonspecific inflammatory reaction :

A. Liver transaminases
B. Anti nuclear antibodies
C. C reactive protein
D. Prostaglandins C,D and E

Ans: c

A child was brought to the emergency room with a sore throat. The Tonsils were red and congested and he was febrile (Temp:39.8) Which mediator is responsible for these 3 inflammatory features:

A. Prostaglandins
B. Interleukins
C. leukotrienes
D. Bradykinin

Ans: a

In contrast to chronic inflammatory response, the acute inflammatory response is characterized by:

A. Slower time to be noticed
B. More prominent local and systemic manifestations
C. More tissue damage and fibrosis
D. Tissue infiltration by plasma cells
E. Tissue infiltration by eosinophils

Ans: b

Opsonization is best described as:

A. Recognizing the pathogen
B. Coating the microbe to enhance phagocytosis
C. Following a specific chemical gradient
D. Activation of the complement system

Ans: b

Which of the following statements is true regarding steroids:

A. They are a potent inhibitor of phospholipases
B. They are inhibitors of COX-1
C. They induce immunity
D. They are considered as pro-inflammatory drugs

Ans: a

Which of the following is true regarding the M2 pathway:

A. It is also called the classical pathway
B. It is activated by the presence of microbes
C. It stops inflammation and promotes repair
D. Macrophages start producing IL-1 and chemokines

Ans: c

A biopsy was taken from a patient. They found out that it was a chronic inflammation case, what did they see in the biopsy:

A. Fibrosis, macrophages, lymphocytes, and plasma cells
B. Neutrophils and macrophages
C. Eosinophils
D. Histamine and heparin
E. All of the above

Ans: a

A 65-year-old patient came to the hospital with fever, malaise, and shortness of breath. History denotes severe rheumatoid arthritis requiring a long-term high dose steroid treatment. Chest x-ray shows bilateral lung infiltrate. What should you consider in this patient as an important differential diagnosis:

A. Opportunistic lung infection
B.Lung abscess due to necrotizing inflammation
C. Community acquired Candida pneumonia
D. Lobar pneumonia due to a Haemophilus influenzae infection
E. H1N1 influenza infection

Ans:a

Which of the following mediate(s) the release of acute phase proteins from the liver:

A. IL-6/IL-1
B. TGF-B
C. IL-3
D. IL-7
E. All of the above

Ans: a

A patient presents with a red and swollen appendix with yellow creamy fluid and had to undergo appendectomy. No considerable number of lymphocytes is found. Which of the following is correct:

A. It is a chronic appendicitis
B. Transudate fluid is found
C. It is a purulent suppurative inflammation
D. None of the above is correct

Ans: c

Which of the following statements best describes the process of total chemotaxis:

A. Integrins cause weak adhesion to endothelial cells
B. P and E selectins cause strong adhesion to endothelial cells
C. CD31 (PECAM-1) mediates transmigration
D. TNF causes transmigration
E. None of the above

Ans: c

The initial strong affinity of leukocytes to endothelial cell is mediated by:

A. Integrins (ICAM 1)
B. PECAM (CD31)
C. P, E selectins
D. Histamine
E. TNF

Ans: a

TNF is characterized by:

A. Phagosome enzyme with killer activity
B. Leukotriene produced by mast cells
C. PG a vasodilator
D. Chemokine that enhances leukocyte activation
E. Cytokine produced by macrophages that works as an inflammatory mediator

Ans: e

What is the function of IL-17:

A.Recruitment of neutrophils and macrophages
B. Induces vasodilation
C. Cause fever
D. Smooth muscle contraction
E. All of the above

Ans: a

the following is an example of a non-necrotizing granuloma and in which all acid-fast tests were negative:

A. Tuberculosis
B. Cat-scratch disease
C. Syphilis
D. Sarcoidosis
E. Leprosy

Ans: d

For any feedback, scan the code or click on it.

Corrections from previous versions:

Versions	Slide # and Place of Error	Before Correction	After Correction
V0 → V1			
V1 → V2			

Additional Resources:

رسالة من الفريق العلمي:

Reference Used:
(numbered in order as cited in the text)

1. First reference
2. Second reference
3. …

Extra References for the Reader to Use:

1. Video
2. Webpage
3. …