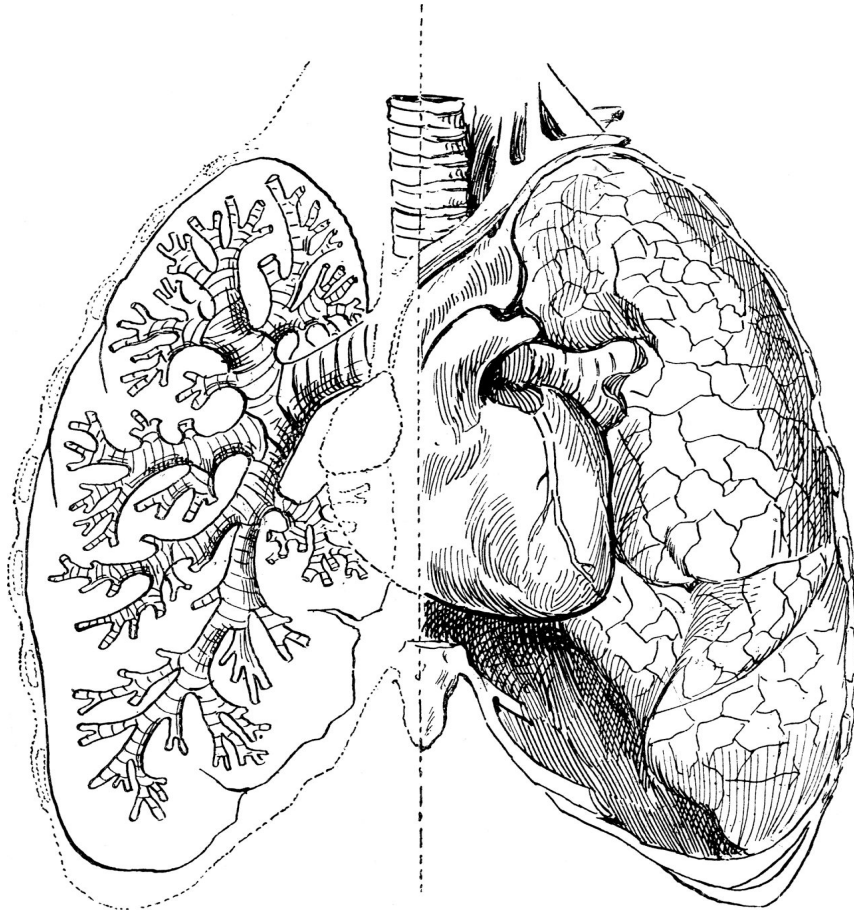


Viral Questions

435's Teamwork
Respiratory Block



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- The document includes SAQ scenarios and MCQs.
 - Please contact the team leaders for any suggestion, question or correction.
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MCQs

Q1: The negative sense (stranded) RNA cannot be translated directly?

- A | TRUE.
- B | FALSE.

Q2: The majority of viral infection affect the lower respiratory tract?

- A | TRUE.
- B | FALSE.

Q3: Acute bronchiolitis and viral pneumonia are 2 important manifestations of:

- A | Upper RT infection.
- B | Lower RT infection.
- C | TB invasion.
- D | AIDS.

Q4: The influenza virus can agglutinate certain erythrocyte:

- A | Haemagglutinin.
- B | Neuraminidase.
- C | Proteolytic oxidase.
- D | 2,3 - DPG.

Q5: Influenza virus are most likely to affect people at:

- A | Winter.
- B | Fall.
- C | Summer.
- D | Spring.

Q6: Detection of Igm can be obtained by:

- A | ELISA.
- B | PCR.
- C | BOTH A & B.

Q7: Oophoritis for male and Orchitis for female:

- A | TRUE.
- B | FALSE.

Q8: One of the following affect human only:

- A | MEASLES .
- B | INFLUENZA .
- C | MUMPS .
- D | ADENOVIRUS.

Q9: One of the following can be treated at least temporarily by support vital organ functions:

- A | MERS-COV.
- B | Oophoritis.
- C | Orchitis.
- D | Flu.

Q10: The incubation period of MERS is:

- A | 2-14 days.
- B | 2-5 days.
- C | 6-20 days.
- D | 1-4 days.

Q11: What type of diseases does Adenovirus cause?

- A | Tumors.
- B | Eye's infections , URTI .
- C | LRTV
- D | COPD.

Q12: What type of diseases does Coronavirus cause?

- A | URTI, LRTI.
- B | Eye's infections.
- C | Tumors.
- D | COPD.

Q13: From Which family does HUMAN METAPNEUMOVIRUS arise :

- A | Paramyxoviridae.
- B | Coronaviridae.
- C | Adenoviridae.
- D | Orthomyxoviridae.

Q14: What is the function of the Neuraminidase viral protein?

A | Attaches to the cell surface receptor.

B | Responsible for release of the progeny viral particles from the infected cell.

C | phagocytosis.

D | division.

Q15: How many types of Influenza virus do we have?

A | 2

B | 5

C | 8

D | 3

Answer key:

Q1: A - Q2: B - Q3: B - Q4: A - Q5: A - Q6: C - Q7: B - Q8: A - Q9: A - Q10: A - Q11: B - Q12: A - Q13: A - Q14: B
- Q15: A

SAQs

CASE ONE

A 23-year old male came to the ER with sore throat and malaise associated with fatigue. After further investigation we conclude that he has viremia.

1- What type of virus he is affected with?

Answer: Influenza virus from orthomyxoviridae family.

Explanation: Because he developed viremia.

2- Enumerate 2 complications he might develop?

1- Reye's syndrome.

2- Myositis, Bronchial asthma.

3- One lab diagnosis method?

PCR or IFA.

CASE TWO

A 32 year old Sudanese camel farmer came to the ER with common cold symptoms, diarrhea, vomiting, acute kidney failure and some liver complications.

1- What is the expected disease and virus?

Middle East Respiratory Syndrome (MERS) , coronavirus.

2- What area of the world is mostly affected and when does it increase?

Arabian Peninsula, winter season.

CASE THREE

A 7-year old patient came to see the doctor. He is complaining from runny nose, mild sore throat and sneezing.

1- The most suspected virus is:

Rhinovirus.

2- The prognosis and treatment:

Good prognosis and a self-limiting disease, no vaccine.

CASE FOUR

A 5-year old patient came to the doctor with rash all over his body , prodromal symptoms and koplik's spot.

What is the virus and enumerate 2 features of it?

Measles virus.

What is the pathogenesis?

Virus infects first epithelial cells of respiratory tract, then, the virus spreads to the blood causing viremia. After that, it gets disseminated to the skin causing maculopapular rash.

What is the prognosis?

Good, with life-time immunity.

CASE FIVE

A 8-year old boy came to his family doctor with slapped cheeks, sneezing, cough and mild lymphadenopathy.

1- What is the virus causing these symptoms?

Parvovirus B19 from parvoviridae family.

2- What is the pathogenesis?

The virus infects the endothelial cells of the blood vessels in the skin, and the red blood cells precursors (erythroblast) in the bone marrow, which account for aplastic anemia. Immune Complexes may attribute to the development of the rash.

3- Give me one lab diagnosis method?

Detection of IgM with ELISA or PCR.

4- Treatment and prevention?

NON.