



Microbiology and Immunology Department

Summer Training Cases

2020-2021

Case 1

A 10 years old child complained of vomiting, abdominal pain, severe pallor, yellowish eyes and brownish liquorice urine. He had eaten a meal that included fresh salad a few days ago in a restaurant.

1. What is the diagnosis for this case?
2. What is the possible organism?
3. What is the mode of transmission?
4. What is the laboratory diagnosis in this case?
5. What drug do you think the physician will prescribe?

Case 2

A 12 year old girl presents with fever, rash, headache, weight loss and fatigue. Her knees, ankles, elbows, and wrists showed warmth, swelling, redness, and tenderness. **Firm, painless nodules** on the extensor surfaces of the wrists, elbows, and knees were noticed. She displayed rapid, purposeless movements of the face and upper extremities. It was revealed that she had suffered from **pharyngitis** three weeks earlier and had a history of repeated attacks of sore throat.

1. What is your diagnosis?
2. How do you laboratory diagnose this condition?
3. What is the pathogenesis of ARF?
4. How is the diagnosis of ARF made with laboratory tests?
5. Why is anti-streptolysin S not used?
6. How can the onset of ARF be prevented?

Case 3

A 23 old female complains of mild fever, increased frequency, urgency and burning micturition. She also reported a sensation of bladder fullness, lower abdominal discomfort and flank pain.

1. What is your diagnosis?
2. What are the bacteria that can cause urinary tract infection?
3. What is the common source of UTI?
4. How is the sample collected for laboratory diagnosis?
5. How long can the urine be held before testing?
6. Which investigations are performed on urine samples?
7. What is the difference between pyuria and bacteriuria?
8. How is this condition treated?

Case 4

A 33-year old male tourist from Europe was admitted to a local hospital following bouts of diarrhea. He had been having food and water from nearby street food stalls. He had no fever or vomiting.

1. What is your diagnosis?
2. What is diarrhea?
3. What is traveler's diarrhea?
4. What is the pathogenesis of this condition?
5. Which are the other organisms that can cause diarrhea?
6. What is the specimen collected and what is the role of laboratory diagnosis?
7. What is your laboratory tests results observation?

Case 5

A 40 years old male was on a business trip and checked in a 5 stars hotel that had water fountains in its entrance. In spite of the hotel being well furnished and was air conditioned, very few clients had checked in. After 2 days this man started complaining of fever, chills, malaise, muscle aches and dry cough. His condition worsened over several days, where his temperature increased to 40.5 °C and cough became accompanied with sputum.

1. What is the name of the disease?
2. What is the causative pathogen?
3. What is the reservoir of infection?
4. What organ or system is involved?
5. What is the laboratory diagnosis in this case?
6. Which antimicrobial drug should be given?

Case 6

A 35 years old male presented with mild fever, cough, accompanied with yellowish sputum and hoarseness of voice.

1. What are the organs involved in this case?
2. What is the possible diagnosis?
3. What are the possible causative organisms?
4. What is the reservoir of infection in this case?
5. What is the mode of transmission?
6. What is the laboratory diagnosis in this case?
7. What drug do you think the physician will prescribe?