My Case Study

By David Stamps

John, a 30-year-old diabetic, takes a tumble down a flight of stairs during a night out at the bars. He has some bruises and scrapes, but is otherwise okay. His friends decide to take him to the ER as a precaution. After being examined and having his scrapes bandaged, he is given a prescription strength non-steroidal anti-inflammatory drug (NSAID) and leaves the hospital early in the morning. Later that morning, John begins having pain near his elbow. He notices a small scrape on his elbow, which is warm to touch. John ignores the pain for several hours, but eventually the elbow pain becomes very severe, and he notices that the area around the scrape is turning red and looks swollen. John makes an appointment to see his primary care doctor in the afternoon.

1. What conditions could John have?
2. What are common etiological agents of those conditions?

Upon arrival to the clinic John is having intense elbow pain, and the area around the scrape is beginning to look bruised and swollen. The nurse also finds that he is running a 101.6 fever and has a heart rate of 110 beats/minute. The nurse is alarmed at John’s worsening condition and has the doctor see him immediately. The doctor quickly examines John and immediately calls 911.

3. What disease does the doctor suspect?
4. What complications is the doctor worried about?

The ER doctor diagnoses John with necrotizing fasciitis (NF) also known as “flesh eating disease” and starts John on broad-spectrum IV antibiotics. He also informs John that immediate surgery will be needed.

5. Why would immediate surgery be needed for NF?
6. What lab tests are usually performed when NF is suspected?
7. Explain how the bacteria that causes NF “eat” flesh?

John’s condition continues to worsen and he nearly goes into shock despite being given antibiotics and having much of the necrotic tissue near his elbow removed. The doctor gives John IV Vancomycin and he begins to recover. The doctor informs John that he will need a skin graft to help his elbow heal and tells him that he is fortunate to only need a graft. Lab confirms that Staphylococcus bacteria caused John’s infection.

8. Why would the doctor tell John that he is fortunate to only need a skin graft?
9. What other treatments are used for NF?
10. What is the etiological agent of John’s infection and where could he have acquired it?
11. What are John’s risk factors for NF and what are some other risk factors?

View the solution.