MECHANISMS OF HUMAN DISEASE
AND
PHARMACOLOGY & THERAPEUTICS

CASE-BASED SMALL GROUP DISCUSSION

MHD II
Session 12

APRIL 10, 2019

STUDENT COPY
CASE HISTORY 1

CC:  Fever, dry cough, achy all over x 3 days

A 55-year-old woman with a history of idiopathic dilated cardiomyopathy diagnosed 1 year ago developed the sudden onset of fever to 101°F, headache, muscle aches, and malaise on February 17. She felt like she was “hit by a train”. Subsequently she was sore “all over” and felt that even her “hair” and “skin” hurt. These symptoms were accompanied by sore throat and dry cough. Her peak temperature at home was 102.8°F. She had no GI symptoms of diarrhea, nausea or vomiting. Her 2-year-old grandson had visited her on Valentines’ Day. On February 19, the patient presents to an urgent care facility with her daughter.

Medications:
Furosemide 40mg daily
Carvedilol 6.25mg BID
Lisinopril 10mg daily
Multivitamin

She notes that she has not taken her medications x 2 days because she felt “too wiped out” to get up off her couch to take them.

Social History
Tobacco – never smoked
Alcohol – rare
Lives alone

On exam she appears fatigued and has a nonproductive cough. Blood pressure is 102/75, pulse 90, respirations 16, and temperature 100.9°F. Pulse oximetry on room air is 93%. There is mild posterior pharyngeal erythema without exudates. On neck exam there is no lymphadenopathy. JVP is not elevated. On auscultation there are rare scattered crackles. There is no dullness to percussion. On heart exam the PMI is palpated in the mid-axillary line. There is a normal S1 and S2, no S3 or S4. II/V1 holosystolic murmur is heard at the apex and radiates laterally. Abdominal exam is unremarkable. She has 1+ bilateral lower extremity pitting edema to the knee.

Educational Objectives:
1. Summarize the case.
2. Develop a differential diagnosis for the patient’s acute illness.
3. What additional questions would you want to ask the patient, or have in general.

After obtaining additional history, the physician makes a clinical diagnosis. He has evaluated other patients over the past week with a similar constellation of symptoms, as have his practice partners.

4. What diagnosis do you favor? Do you agree that additional diagnostic testing is not necessary?

5. How is this infectious agent transmitted?

6. How is infection with this agent confirmed?

7. What is the best method to prevent infection with this agent?

8. What pharmacologic treatments are available for this infection? What is/are their mechanism of action?
After several days, the patient begins to feel better. However, on February 25 she develops a worsening cough, now productive of yellow-green sputum, and re-develops a fever to 101°F.

Remainder of questions for Case 1 will be provided during the small group session.

Data for Questions 2,3,4,5 will be provided during the small group session.