

CMC #5 GENITO-URINARY INFECTIONS
(Reading *Infectious Diseases in 30 Days*, pg 231-255)

Case 1 (Case 9.1 pg 234)

Initial Presentation:

A.S. is a 23 yo white female who was admitted with complaints of

Left flank pain x 4 days and fever x 2 days

One week before admission (four weeks after her honeymoon) she noted mild burning on urination. Four days before admission she noted left flank pain. Two days before admission she experienced fever associated with rigors and increasingly severe flank pain.

She reports recurrent urinary tract infections over the past 5 years, generally requiring antibiotic treatment once per year. She denies vaginal discharge and is presently completing her menstrual cycle.

Physical exam: BP 90/60. P115 Temp 100°F, except for mild left costovertebral angle tenderness WNL. No suprapubic tenderness. Pelvic exam WNL.

Laboratory data: WBC 10,200 (81% PMN, 2 bands, 13 lymphs, 4 mono) Hct 36, BUN 3, S. Creat 0.4. Urinalysis: SpG 1010, pH 5, 100 WBC per hpf (high power field), nl < 0-5), 0-2 rbc/hpf (nl). No protein or glucose detected.

Guiding Questions:

1. What type of urinary tract infection do you think this young woman has, cystitis or pyelonephritis? What clinical clues help to differentiate these two disorders? Would you order any additional tests to help differentiate these two entities?

2. What pathogens most frequently cause bacterial urinary tract infections? Why?

3. How do these organisms enter the urine? What factors increase the risk of developing urinary tract infections? Would you perform an intravenous pyelogram in the woman? Explain why or why not?

4. The "clean catch" urine culture is positive. The colony count is estimated to be 50,000 colonies/ml? Is this a significant count? Why or why not?

5. How long would you treat this woman?

6. You see A.S. 3 months later in your office. She denies any urinary complaints or fever and feels well. She has just become pregnant and wants to make sure she is now healthy. You order a repeat urine culture which is positive. What would you recommend and why?

Case 2

A 29 yo woman presents with a 3 day history of lower abdominal pain, frequency, and severe dysuria. Except for 2 normal pregnancies, her past medical history is unremarkable. Her last menstrual period was normal and began 8 days ago. She was recently divorced. Her present boyfriend was treated for urethritis last week. Examination is normal except for an oral temperature of 100.7°F., lower abdominal tenderness, and moderate pain on lateral motion of the cervix. Severe abdominal tenderness precluded an adequate bimanual exam.

Guiding Questions:

1. How does this woman's history and physical findings differ from Case 1? What are the two most likely possible diagnoses?
2. What tests would you order to attempt to differentiate between the two diseases?
3. What therapy would you recommend?

Case 3

A 20 year old college junior presents with dysuria and a urethral discharge which he first noted 6 days ago while vacationing in Fort Lauderdale. He admits to several sexual encounters during his vacation. On examination he has a urethral discharge which is yellow and thick. He has no palpable lymph nodes.

Guiding Questions

1. What tests would you order to help determine the etiology of his urethritis?
2. On more careful examination you also note a nontender 1 x 1 cm painless ulcer on the glans of his penis. A small minimally tender inguinal node is also palpated. What other disease might this young man have? What tests would you perform to diagnose this problem?
3. What antibiotic treatment would you recommend and why?