Case31 Print

Location: Office

Vital signs: Pulse: 110/min; BP: 110/60 mmHg, Temperature: 39.6C(103.4F), RR: 20/min, Height: 70", Weight: 165Lb.

HPI: A 28-year-old, previously healthy, Hispanic male presents with 3-day history of burning micturition. He also has discomfort and pain in perineum, lower abdomen and back along with fever, chills, and nausea. He states that he needs to strain to pass urine. He passed moderate amount of urine few hours ago. He denies nocturia or increased frequency; even though he had not had vomitings he feels very nauseous and did not eat form past 24 hours. He has no other known medical problems. He has no known drug allergies. He is sexually active with his wife and do not use contraception. He denies multiple sexual partners, previous STDs and illicit drug use. He denies smoking and alcohol. Family history is nothing significant.

How do you approach this case?
This young man has dysuria, perineal discomfort and fever. The differentials to keep in mind are acute prostatitis, acute cystitis, acute urethritis, acute epididymitis and pyelonephritis.

Order physical exam:
General
Lungs
Heart
Abdomen
Rectal
Genitalia
Extremities

Here are the findings:
Gen: A 28-year-old male patient in moderate pain and appears ill. Abdomen is non-distended, bowel sound are active; supra pubic tenderness is present; there is no costo vertebral angle tenderness; bladder is not distended. Digital rectal exam (DRE) revealed exquisitely tender, diffusely enlarged boggy prostate (avoid message and repeating DRE). External genitalia appear normal without any ulcerations or urethral discharge. Rest of the exam is with in normal limits.

Discussion:
Presence of perineal discomfort, clinical finding of exquisitely tender, diffusely enlarged boggy prostate on digital rectal exam makes acute prostatitis the most probable diagnosis.

Orders:
Change the location to ward.
IV access, stat
CBC with diff, stat
BMP, stat
Urinalysis, stat
Urine Gram stain, stat
Urine culture and sensitivity, routine
Blood cultures, stat
Vital signs Q 6 Hrs
Regular diet
Bed rest with bathroom privileges

Here are the results:
CBC: Hb: 14mg%, WBC: 17,000/cmm with 6% bands.
BMP: Na: 135meq, K: 4.0 meq, HCO3: 24meq, Cl: 100meq, BUN: 16 mg/dL, S.Creatinine: 0.8mg/dl, Blood sugar: 100 mg/dL.
Urine analysis:

Urine appearance	Cloudy/yellow
pH	6 (Normal 4.1-8)
Specific gravity	1.026(Normal 1.003-1.030)
Bilirubin	Negative
Ketones	Negative
Glucose	Negative
Blood	Negative
RBC	Negative
Casts	None
Esterase	Positive
Nitrite	Positive
Proteins	Trace
Bacteria	Too numerous to count
WBC	50+

Urine for gram staining shows Gram-negative bacilli
Urine C/S results pending
Blood cultures pending

Order:
Ampicillin, IV, continuous*1-2 days until patient is afebrile
Gentamycin, IV, continuous*1-2 days until patient is afebrile
Normal saline, IV, continuous
Acetaminophen, oral, continuous
Promethazine, IV, one time

*If the pain is severe consider IV NSAIDs such as ketorolac

Click call me if needed; advance the clock for 6 hours

Obtain brief history, and do focused physical exam; check his vital signs. If everything is ok advance the clock for 16 hours; again obtain brief history, and do focused physical exam; check his vital signs.

Order:
Once the patient is afebrile, D/C IV medications (Double click on the medication and choose delete)
Order CBC with diff and urinalysis after 24-hours of treatment
Ciprofloxacin, oral, continuous
D/C IV fluids and Promethazine

Results:
Blood cultures after 24 hours shows no growth
Urine culture is growing >100,000 colonies of Lactose fermenting gram-negative rods.
Sensitivities are pending (It takes 2 days).

Counseling:
Patient counseling
Regular diet
Medication compliance
Safe sex practice
Contraception counseling
Seat belt while driving

Discharge the patient (change location to home) once afebrile and make an appointment to see in 7 days.

Order the following with next appointment:
Brief history
Focused physical examination

Available lab results:
Urine C/S reveals E. coli, sensitive to ampicillin, cefazolin, gentamycin, azithromycin and ciprofloxacin.

Order:
Urinalysis, stat
Change antibiotic depending on C/S results for a period of 4 weeks

Primary diagnosis
Acute bacterial prostatitis

Discussion:
Annually 2 million cases of prostatitis cases are documented in USA. Prostatitis occurs in young and middle aged men. The common forms of presentation are acute bacterial, chronic bacterial and chronic abacterial prostatitis, the common being acute bacterial prostatitis.

The most common organism is E. coli. Pseudomonas may be the causative organism in case of diabetics; chlamydia and gonorrhea is common in high-risk patients such as patients with multiple sexual partners who don't practice safe sex. The organisms ascend up to prostate through urethra precipitated by trauma, dehydration and bladder catheterization. The common presenting symptoms are faver, malaise, irritating voiding symptoms, *supra pubic and perineal pain* or discomfort. There may be obstructive symptoms because of edematous prostate in which 'suprapubic' drainage may be necessary to drain the bladder, avoiding bladder catheterization through urethra, which predisposes to bacteremia. Most of the time it is confused and treated as cystitis. The striking examination finding will be tender diffusely enlarged boggy prostate on DRE, which is done by gentle fashion avoiding prostatic message, as it will be painful and also to avoid bacteremia. Urinanalysis is always the first step along with Gram stain of urine to guide the antibiotic therapy. Positive urine/blood cultures and leukocytosis support the diagnosis. PSA may be elevated but is not diagnostic and if elevated, should be repeated after infection resolves; if remains elevated biopsy should be done to rule out malignancy.

Patients with sepsis like picture (altered mental status, hypotension) and who cannot take oral antibiotics secondary to nausea and vomiting should be aggressively treated with IV antibiotics, IV fluids and if needed vasopressors. The most cost affective regimen will be IV ampicillin and gentamycin (get BUN and Creatinine before you start Gentamycin) empirically before the culture results available. Once patient is afebrile, oral antibiotics can be used. Either Bactrim (TMP+SMX) or ciprofloxacin are the oral antibiotics of choice. Once the culture results are available patient should be maintained on appropriate antibiotics for 4 weeks to prevent complications such as prostatic abscess or septicemia. Patient should be seen on regular visits with urine analysis. If treated appropriately chances of acute prostatitis going for chronic form and abscess is rare.

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