Patient with Urinary Tract Infection

Name

University

February 17, 2024

Subjective Data

- Caucasian female, age 34
- CC: I feel Burning sensation when urinating and my lower abdomen hurts
- HPI: Patient is a 34 y/o female who presented as a walk-in to the OB/GYN office complaining of lower abdominal pain and burning sensation on urination over the past 2 days that started after sexual intercourse. Patient stated that she decided to come to the office because pain increased from 5/10 to 7/10 since yesterday. Denies fever, vaginal discharge, or bleeding. O. It started 2 days ago; L. It hurts in my lower abdomen; D pain continues for all this time; C Pain is intense and debilitating; A pain gets worse with cold; R pain gets better when taking a warm bath; T/S Pain is 7 out 10.
- Allergies: no know allergies

Subjective Data

- Medications: Prenatal vitamins
- PMH: STI (Chlamydia Infection) last year. UTI 6 month ago.
- Hospitalizations/Surgeries: Appendectomy (2017)
- Family hx: unremarkable; all relatives first degree are in good health; no chronic illness in the family.
- Social hx: Patient is a web designer working remotely. She lives alone. She reports not using alcohol/drugs/tobacco. Patient reports eating healthily and doing exercise. Patient has multiple sexual partners. Uses condoms for protection

Subjective Data

ROS: General - Reported moderated to severe pain. Pain level is 7/10. Denies fever, weakness, weight loss, and fatigue. Gastrointestinal - denies any nausea or vomiting. Denies any complaints of abdominal pain or Any change in bowel patterns or diet.
Genitourinary/Gynecological – positive for burning sensation on urination. Denies urinary frequency or vaginal itching.

Objective Data

- Vital Signs: Weight 170 lbs; Height 65 in; BMI 28.27; Temp 98.5; BP 102/68; Resp 18 reg; 72 BMP/reg. Pain 7 out 10.
- Physical examination: Cardiovascular - Heart Rate and Rhythm normal, No murmurs heard. Respiratory - bilateral breath sounds clear to auscultation. No Adventitious breath sounds heard. No respiratory distress noted. Gastrointestinal - Normal active bowel sounds throughout; tenderness to palpation in the super-pubic area no masses or organomegaly. Neurological - Speech clear. Good tone. Posture erect. Balance stable; gait normal. Genitourinary - Bladder is non-distended; no CVA tenderness. External genitalia reveals coarse pubic hair in normal distribution; skin color is consistent with general pigmentation. No vulvar lesions noted. Well estrogenized. A small speculum was inserted; vaginal walls are pink and well rugated; no lesions noted. Cervix is pink and nulliparous. Scant clear to cloudy drainage present. On bimanual exam, cervix is firm. No CMT. Uterus is antevert and positioned behind a slightly distended bladder; no fullness, masses, or tenderness. No adnexal masses or tenderness. Ovaries are non-palpable.

Labs

- Urine Color: Yellow; Appearance: Turbid; Specific Gravity: 1.011; PH: 7.0
- Glucose: Negative; Bilirubin: Negative; Ketones: Negative; Protein: Negative; Nitrite: Negative; Urobilinogen: Negative;
- Occult Blood: 1+
- Leukocyte Esterase: 3+
- Microscopic Examination
- WBC: > or = 60; RBC: 0-3; Squamous Epithelial Cells: 6-10; Bacteria: Moderate; Hyaline Cast: None SEEN

Assessment

- Primary Diagnosis - Urinary Tract Infection N39.0 – the condition occurs when bacteria enter the urinary tract through the urethra and multiply in the bladder. Common pathogens include Escherichia coli, Klebsiella pneumoniae, and Proteus mirabilis (Buttaro et al., 2024) Factors such as sexual activity, urinary catheterization, and anatomical abnormalities can increase the risk of UTIs. Symptoms include dysuria, frequency, urgency, and hematuria (Buttaro et al., 2024). This clinical picture is clear in this patient; besides, she reports symptoms after sexual intercourse (Hilt et al., 2023). Diagnosis is supported by lab results, indicative of a bacterial infection in the urinary tract.

Differential Diagnoses

- Pelvic Inflammatory Disease (PID): Symptoms of lower abdominal pain and dysuria, particularly after sexual intercourse, raise suspicion for PID, an infection of the female reproductive organs commonly caused by sexually transmitted bacteria (Buttaro et al., 2024).
- Ovarian Cyst: Lower abdominal pain in a female of reproductive age, exacerbated by sexual activity, may be indicative of an ovarian cyst. The cyst can cause discomfort and a burning sensation, especially if it has ruptured or is pressing on nearby structures (Buttaro et al., 2024).
- Interstitial Cystitis (IC): IC, a chronic bladder condition, presents with symptoms similar to those described by the patient. Dysuria and lower abdominal (Buttaro et al., 2024).

Plan

- Medications: Bactrim DS, one tablet PO every 12 hours for three days (Buttaro et al., 2024).
- Non-medication/education: Drink several glasses of water each day to discourage the growth of bacteria by flushing out the urine from your urinary tract; take antibiotic as directed. Patient educated on proper perineal care. Patient educated on signs and symptoms of UTI, including dysuria, burning on urination, and frequency. Pt encouraged to report symptoms that persist in her upcoming follow-up visit (Buttaro et al., 2024).

Plan

- Prevention recommendations: Be mindful about selecting sexual partners; multiple sexual partners present higher risks of bacterial contamination through different routs; use condoms for protection always; regularly visit women care provider in order to ensure prevention of any serious women's health risks (Buttaro et al., 2024).
- Follow up: Patient instructed to follow up in one week with completed laboratory tests (Buttaro et al., 2024).

UTI Management Guidelines

- Hari et al. (2023) UTI management guidelines emphasize the importance of accurate diagnosis through clinical assessment and urinalysis.
- Hari et al. (2023) advocate for appropriate antimicrobial therapy based on culture and sensitivity results, aiming to optimize treatment efficacy while minimizing antibiotic resistance.
- Hari et al. (2023) stress the significance of patient education on symptom recognition, preventive measures, and the responsible use of antibiotics to combat UTIs effectively.

References

Buttaro, T., Trybulski, J., Bailey, P., & Sandberg-Cook, J. (2024). *Primary care. A collaborative practice*. (5th ed.). Elsevier.

Hari, P., Meena, J., Kumar, M., Sinha, A., Thergaonkar, R. W., Iyengar, A., ... & Bagga, A. (2023). Evidence-based clinical practice guideline for management of urinary tract infection and primary vesicoureteric reflux. Pediatric Nephrology, 1-30.

Hilt, E. E., Parnell, L. K., Wang, D., Stapleton, A. E., & Lukacz, E. S. (2023). Microbial threshold guidelines for UTI diagnosis: a scoping systematic review. Pathology and Laboratory Medicine International, 43-63.