"Is it something I ate?"

David Yue, MD

Mr. Davis, 65, presented with a sudden onset of postprandial abdominal pain the previous evening. He recalled eating potato salad, cottage cheese, and deli meat. The abdominal cramps started 15 minutes after his meal, but were relieved with TUMS®. He then noted having fever, and took a tablet of ibuprofen before going to bed. He was still febrile in the morning. He denied any vomiting or diarrhea. He had no urine frequency or dysuria. He had no recent history of upper respiratory tract symptoms. His past medical history included cerebrovascular accident, hypertension, and hyperlipidemia. His medications were enteric-coated acetylsalicylic acid, 325 mg/day; ramipril, 5 mg/day; and simvastatin, 20 mg/day.

His vital signs and the results of his physical exam are listed in Table 1.

Table 1

Vital signs and physical exam upon presentation

Vital signs

- Blood pressure: 140/90 mmHg
- Pulse: 120 beats/minute
- Temperature: 39 C

Physical exam

- Head and neck exam: Normal tympanic membranes and pharynx, with no lymphadenopathy
- Chest auscultation: Normal breath sounds and bilateral air entry; no cardiac murmurs noted
- Abdomen: Unremarkable, with percussion and palpation
- No flank tenderness
- Rigors present

What is the most likely cause of this patient's fever?

a) Viral gastroenteritis
b) Pyelonephritis
c) Diverticulitis
d) Food poisoning
e) Cholecystitis

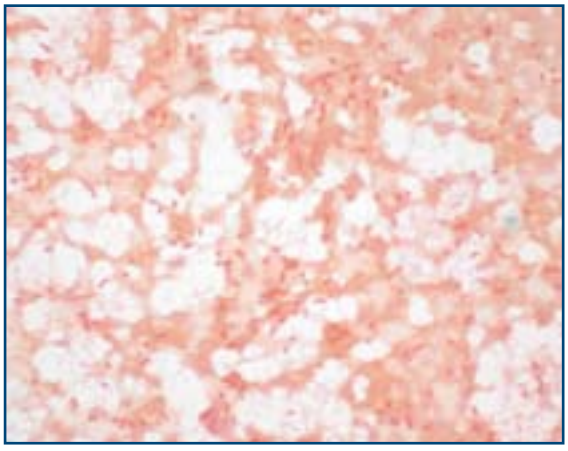

Figure 1. Gram-negative bacilli.

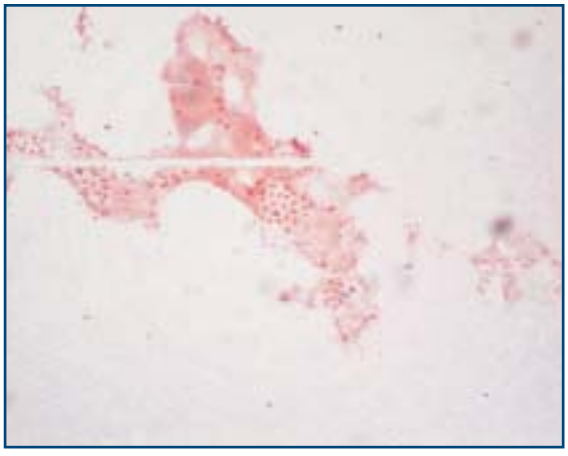

Figure 2. Gram-negative bacilli.

Answer: Food poisoning

Klebsiella pneumoniae is a colonizer of the gastrointestinal tract. Mr. Davis "somehow" had bacteremia after ingestion of his dinner. This probably occured through the intestinal mucosa.

His urinalysis microscopy was negative for white blood cells (WBC) and bacteria. Surgical views of the abdomen and chest X-ray did not show any evidence of cardiac and pulmonary diseases. Bowel gas pattern was unremarkable. A small, roundish, 4-mm right pelvic calcification probably represented a phlebolith, but was quite close to the distal ureter. Other lab results showed:

- Hemoglobin: 151g/L
- WBC: 11.4 x 10^9/L
- Neutrophils: 10.1 x 10^9/L
- Lymphocytes: 0.7 x 10^9/L

He was also sent for blood cultures to rule out any occult bacteremia. He was advised to take two tablets of extra-strength acetaminophen every four hours, as needed, to treat his fever. He was told to return for a followup assessment in 24 hours.

Gram-negative lactose fermenting bacilli were noted overnight in the blood culture (Figures 1 and 2). The patient was brought to the emergency department (ED) for reassessment. His physical exam (Table 2) in the ED was unremarkable. Ultrasound of the abdomen showed no evidence of pathology or free fluid within the lower abdomen and pelvis. The patient was not tender during the exam, and there was no evidence of splenic pathology. He was given ciprofloxacin, 500 mg twice daily, for 10 days for bacteremia of either gastrointestinal or genitourinary origin.

Blood culture later identified the presence of a Klebsiella pneumoniae strain that was sensitive to ciprofloxacin. Mr. Davis was reassessed 48 hours later, and was found to be afebrile, with no complaints. He made a full recovery at the end of his 10-day antibiotic therapy. Dx

Table 2

Mr. Davis's exam results in the emergency department

- Fever: 38.7 C
- Hgb: 139 g/L
- WBC: 7.4 x 10^9/L
- Neut: 5.5 x 10^9/L
- Lymph: 1.2 x 10^9/L
- Electrolytes: Within normal limits
- BUN: Within normal limits
- Creatinine: Within normal limits
- PT: Within normal limits
- PTT: Within normal limits
- BS: Within normal limits
- CK: 161 u/L

Hgb: Hemoglobin
WBC: White blood cells
Neut: Neutrophils
Lymph: Lymphocytes
BUN: Blood urea nitrogen
PT: Prothrombin time
PTT: Partial thromboplastin time
BS: Breath sounds
CK: Creatine kinase

Dr. Yue is a general practitioner, Edmonton, Alberta.

Dr. Yue would like to thank Dr. Jana Nigrin, assistant professor, University of Alberta and medical microbiologist, Dynacare Kasper Medical Laboratories, for providing the gram stain images.

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