Claudication or Something More Sinister: A Case of Endovascular Infection Due to *Campylobacter Coli*

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Case Presentation

- 66-year-old male with CAD, PAD, diabetes mellitus type 1, hypertension, pancreatic insufficiency with chronic diarrhea, tobacco use presented for elective aortobifemoral bypass
- Hospitalization 2 weeks prior for right medial thigh pain attributed to claudication from known PAD, workup revealing:
  - Contrasted CT Abdomen Pelvis (CTAP) – edema within wall of gastric antrum, large stool burden, extensive atherosclerotic changes from abdominal aorta to iliac arteries
  - CT Right Femur and Duplex Ultrasound Right Lower extremity suggestive of pes anserine bursitis
- Intraoperatively found to have avulsed friable branch of superficial femoral artery (SFA) with thick purulence and chronic thrombosis and procedure aborted
- In PACU had fever to 102.7°F, heart rate 129, and hypotension not responsive to intravenous fluids
- Workup significant for:
  - WBC 10.8 10^3/uL
  - Troponemia peaking at 19,276 ng/L
  - Transthoracic echocardiogram with newly reduced ejection fraction and regional wall motion abnormalities
  - Contrasted CTAP – thrombosed right common iliac and right femoral artery, swelling and low-attenuation collections anterior to femoral vessels with soft tissue stranding, no gastrointestinal abnormalities
- Admitted to ICU for mixed septic and cardiogenic shock and and started on vancomycin, piperacillin-tazobactam, unfractionated heparin
- Unsuccessful coronary revascularization
- Blood cultures and right groin intraoperative cultures grew gram negative rods identified as *Campylobacter Coli* by MALDI-TOF, resistant to ciprofloxacin on sent out susceptibilities
- Antibiotics transitioned to intravenous azithromycin for 6-week course for *Campylobacter* bacteremia with infective endarteritis
- Significant improvement in right thigh pain on completion of antibiotics
- Ultimately deemed prohibitive risk for further vascular intervention

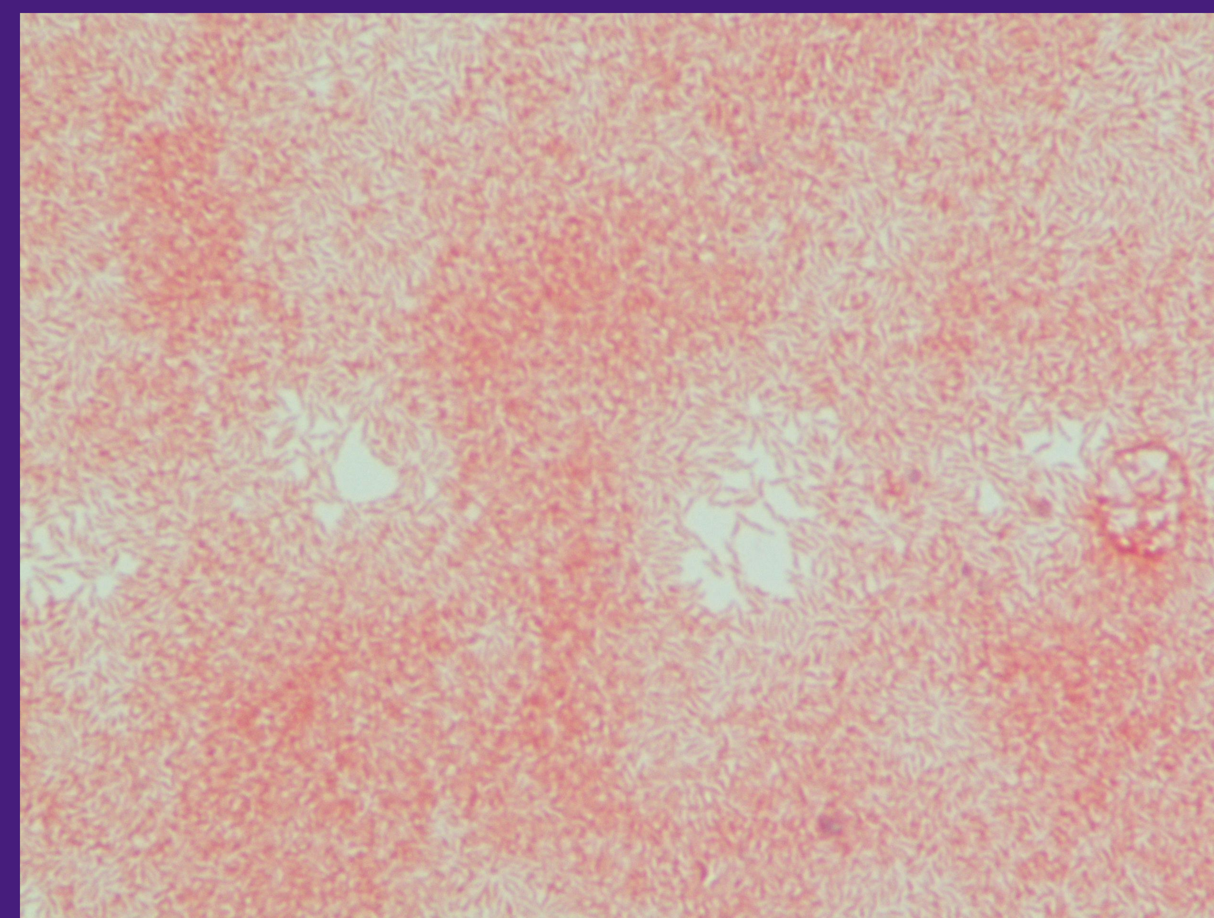

Figure 1. Gram Stain of Colony from R Groin Abscess

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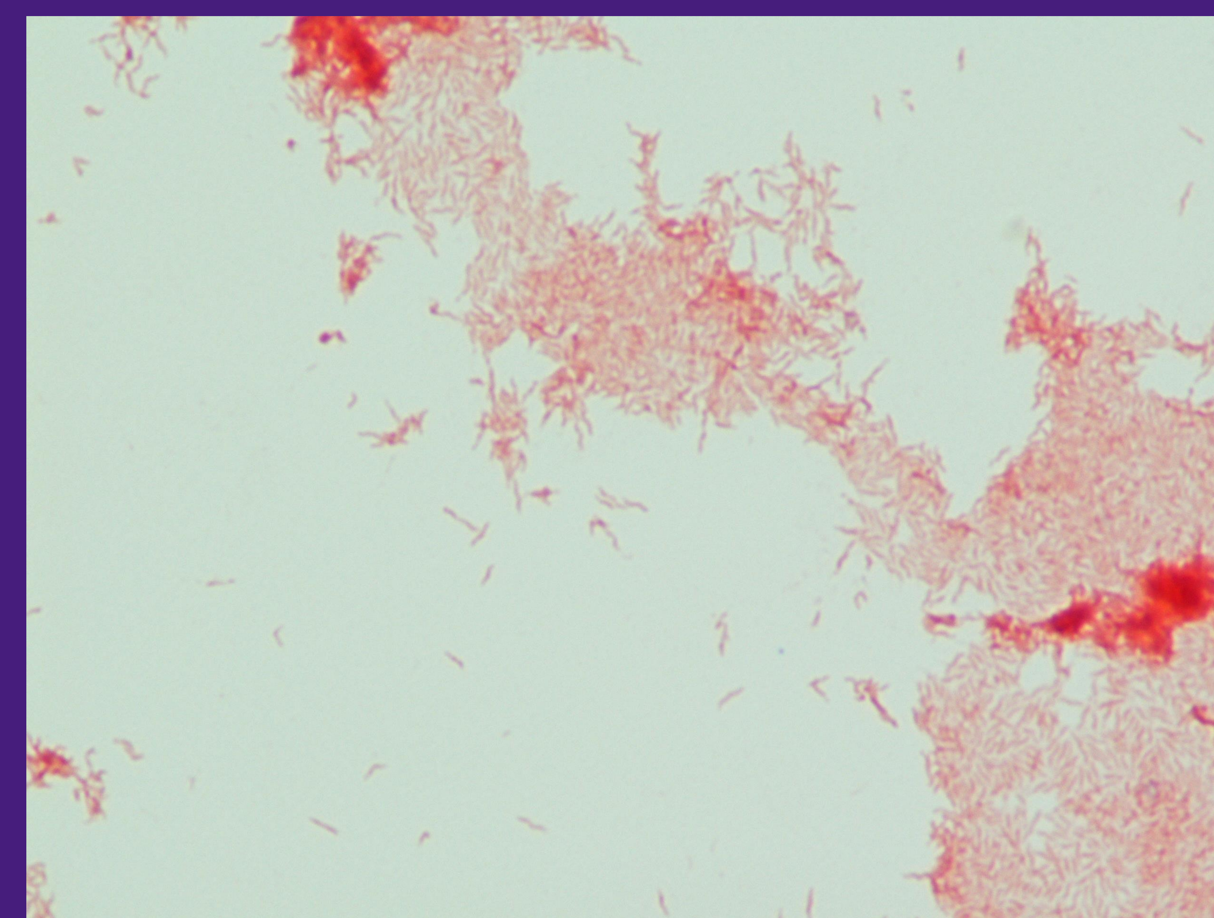

Figure 2. Gram Stain of Colony from Blood Cultures

SUSCEPTIBILITY, ANTIMICROBIAL, CAMPLOBACTER, MIC PANEL

SPECIMEN SOURCE	BLOOD
ORGANISM	CAMPYLOBACTER COLI
CIPROFLOXACIN	16 R mcg/mL
ERYTHROMYCIN	2 S mcg/mL
TETRACYCLINE	0.2 S mcg/mL

Figure 3. *Campylobacter Coli* Susceptibilities

Discussion

- Etiology of patient's presentation thought to be from *Campylobacter Coli* gastroenteritis with gut translocation and subsequent bacteremia with SFA infective arteritis
- *Campylobacter spp.* are a leading cause of gastroenteritis worldwide, however, rarely cause invasive infection
- Endovascular infections account for <1% of invasive infections and preferentially affect infrarenal aorta (66%), less commonly peripheral arteries of lower extremities
- *Campylobacter fetus* and *jejuni are* the most implicated species. *C. Fetus* rarely causes gastrointestinal disease
- Only 22% of cases of endovascular infections present with diarrhea
- Risk factors for invasive infection: male sex, cardiovascular disease, diabetes, solid organ neoplasm, chronic hepatic or renal failure, vascular endografts
- Emerging resistance to fluoroquinolones worldwide, as in our patient
- Cases are likely underreported due to lack of awareness of potential for localized infection thus need high index of suspicion, particularly in cases of bacteremia

References

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