

Eggerthella lenta Bacteremia and Sepsis Due to Right-sided Diverticulitis

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Background

- *Eggerthella lenta* is an anaerobic, Gram-positive bacillus that is part of the normal gastrointestinal microbiome and is a rare cause of bacteremia.¹
- There are 25 case reports detailing *Eggerthella lenta* bacteremia, with one detailing sepsis due to diverticulitis treated with ceftriaxone and metronidazole.²
- Monotherapy with ceftriaxone or piperacillin-tazobactam is associated with increased mortality.³
- Anaerobic bacteria susceptibility occurs in specialized labs.² This bacterium is susceptible to ampicillin-sulbactam, carbapenems, and metronidazole.¹

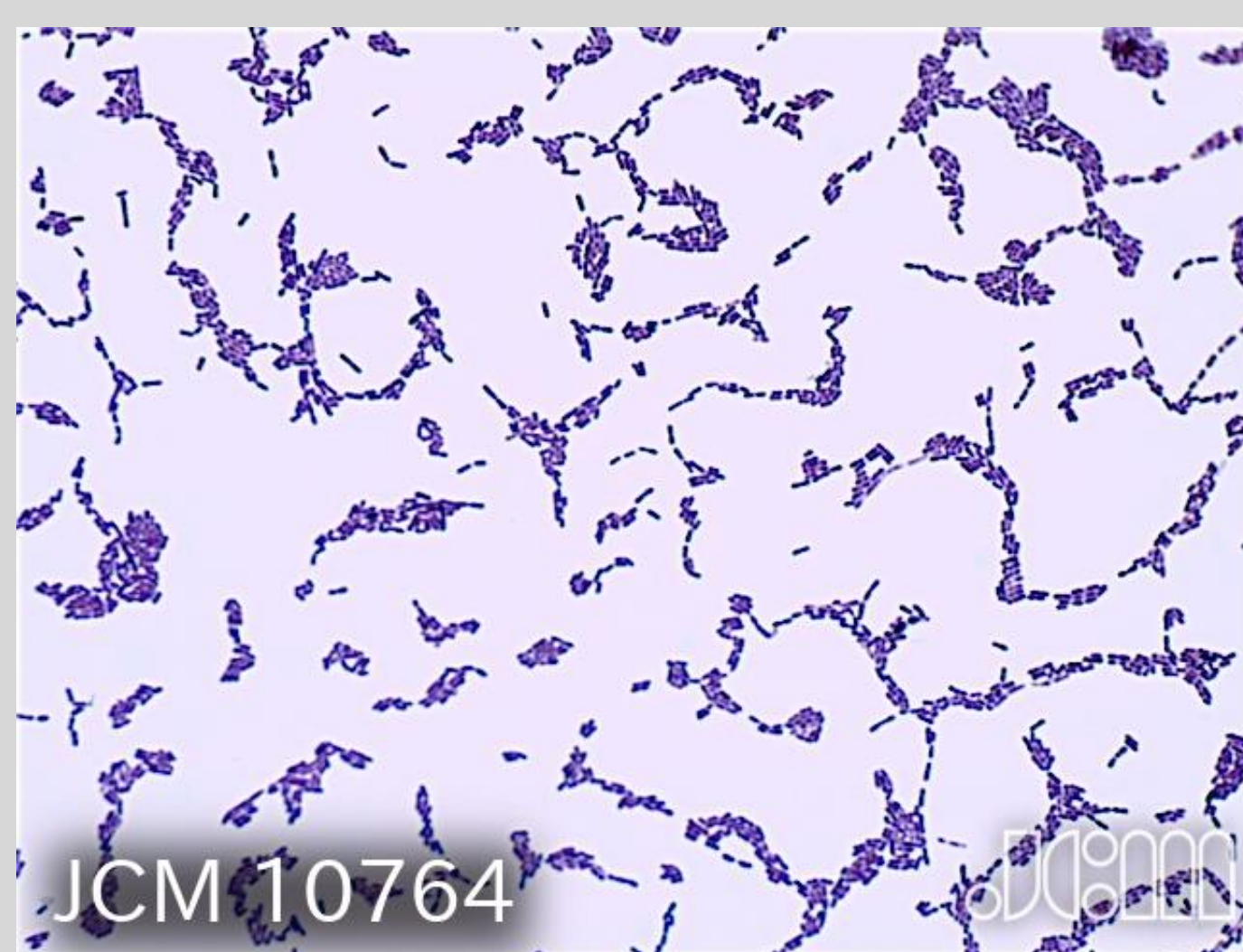


Figure 1: Gram stain of *Eggerthella lenta*

Case Presentation

- 86-year-old male with a history of hypertension, GERD, and osteoporosis presented to the hospital with right-sided abdominal pain for three days.
- He was febrile, tachycardic, and tender in lower right quadrant.
- Labs were significant for leukocytosis and lactic acidosis.
- CT abdomen/pelvis revealed fat stranding surrounding diverticula at the ileocolic junction and a 3.5 cm mass in pancreatic tail.
- He was given intravenous fluids and empiric piperacillin-tazobactam.
- EGD-EUS was done to biopsy the pancreatic mass revealing a well-differentiated neuroendocrine tumor.
- Antibiotics were switched to ertapenem, and the patient was discharged home to complete a ten-day course.

Key Point

- *Eggerthella lenta* is a rare cause of bacteremia not typically tested for susceptibility in local hospitals, and monotherapy with ceftriaxone or piperacillin-tazobactam confers high mortality.

Timeline

Day 1

- Gram-negative rods in 1 of 2 bottles. The patient developed diarrhea. Antibiotics were deescalated to ceftriaxone.

Day 4

- Gram-positive rods were growing in 1 of 2 bottles while the other bacteria speciated to *Escherichia coli*.

Day 5

- *Eggerthella lenta* speciated as the second organism

Imaging

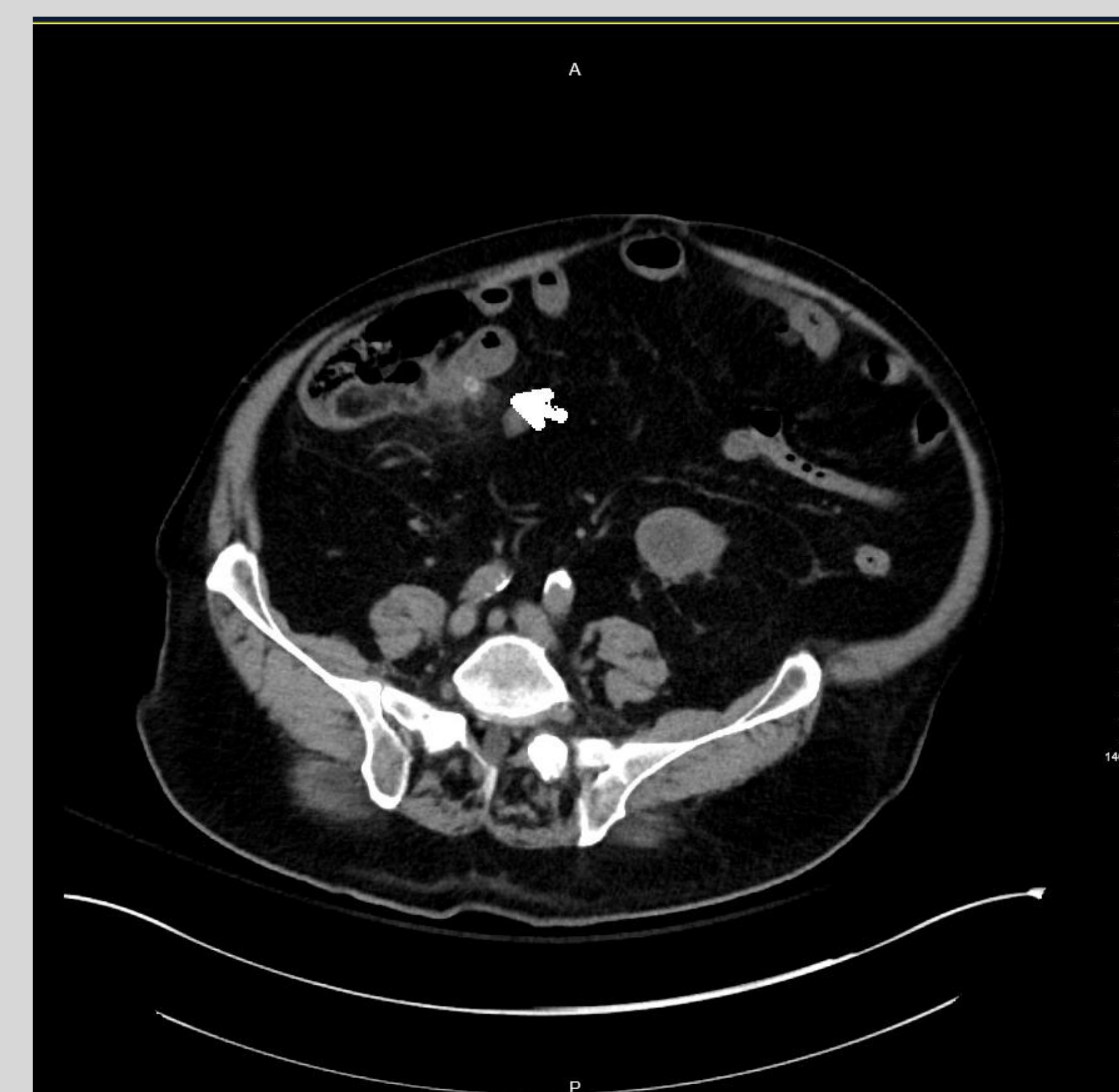


Figure 2: CT abdomen/pelvis w/o contrast showing fat stranding around the ileocolic junction concerning for diverticulitis

Conclusion

- *Eggerthella lenta* sepsis is uncommon and not a typical bacterium that causes bacteremia.
- We typically think to empirically use piperacillin-tazobactam for abdominal infections but careful consideration into choice of antimicrobial is important as monotherapy for this bacterium is associated with high mortality.

References

- Gardiner BJ, Tai AY, Kotsanas D, et al. Clinical and microbiological characteristics of *Eggerthella lenta* bacteremia. *J Clin Microbiol.* 2015;53(2):626-635. doi:10.1128/JCM.02926-14
- Peter-Bibb TK, Tokeshi J. Hawaii's First Published Case of *Eggerthella lenta* Sepsis. *Hawaii J Health Soc Welf.* 2020;79(11):326-328.
- Ugarte-Torres A, Gillrie MR, Griener TP, Church DL. *Eggerthella lenta* Bloodstream Infections Are Associated With Increased Mortality Following Empiric Piperacillin-Tazobactam (TZP) Monotherapy: A Population-based Cohort Study. *Clin Infect Dis.* 2018;67(2):221-228. doi:10.1093/cid/ciy057
- *Eggerthella lenta*. *JCM.* <https://www.jcm.riken.jp/>. Published 1996.