

# From Gut to Bile: *Arcobacter butzleri* as an Unusual Cause of Biliary Sepsis in the Setting of Pancreatic Malignancy



Lorenz S. Lista, MD St. Luke's Medical Center – Quezon City, Philippines LB-CAS-019

# Introduction

Arcobacter butzleri is an emerging enteric pathogen primarily associated with gastroenteritis and foodborne illness. Extraintestinal infections are rare, with only limited cases of bacteremia, peritonitis, and biliary sepsis reported in the literature. This case illustrates its growing clinical relevance in biliary tract infection and, to the best of our knowledge, represents the first documented case of A. butzleri infection in our medical center. It underscores the need to consider uncommon and emerging pathogens in the evaluation of biliary tract infections.

# **Case Presentation**

We present a case of a 67-year-old male with obstructive jaundice from a pancreatic head mass and choledocholithiasis, previously managed with ERCP and stent insertion. One month later, he presented with fever, chills, hypotension, progressive jaundice, and anemia. Laboratories showed leukocytosis (22,150/μL, 90% neutrophils), hemoglobin 4.2 g/dL, and elevated creatinine. Imaging revealed intrahepatic ductal dilatation, hepatic lesions suggestive of metastases, and reactive gallbladder wall thickening. He was empirically started on piperacillin-tazobactam. ERCP with stent exchange yielded 10 mL of bile for culture, which grew A. butzleri. Antibiotics were shifted to azithromycin with subsequent defervescence and clinical improvement alongside definitive source control.



Representative images: Left photo, gram stain of *A. butzleri* showing negative curved and s-shaped rods. Photo at the right is the colony morphology on blood agar plate, showing small, round, concave pinpoint, non-hemolytic colonies.

## Discussion

This case illustrates a rare biliary infection caused by A. butzleri. While typically an enteric pathogen, its ability to colonize stents or compromised biliary systems may facilitate infection beyond the gastrointestinal tract. Biofilm formation on biliary prostheses is a plausible mechanism for persistence and pathogenicity. In this patient with malignancy and prior instrumentation, A. butzleri likely translocated from the gut to the biliary tract, causing sepsis. This report contributes to the growing evidence that A. butzleri may act as an opportunistic, invasive pathogen.

# Conclusion

We present a rare case of biliary sepsis due to *Arcobacter butzleri* in a patient with pancreatic malignancy and biliary stent. This case emphasizes the importance of culture-guided therapy, timely source control, and consideration of emerging enteric pathogens as potential culprits in device-associated infections.

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