

# Disseminated *Clostridium septicum* Infection Presenting With Hepatic Abscess In A Patient With Metastatic Colon Adenocarcinoma

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## INTRODUCTION

The association between certain bacterial infections and malignancy has been demonstrated by several case reports in literature.

Disseminated infection, particularly with *Clostridium septicum*, an aero-tolerant species of Clostridium and an intestinal commensal organism is rare and represents only 2-11% of clostridial infections. *Clostridium septicum* sepsis has been associated with underlying colorectal malignancies and often result in a high mortality rate. A concomitant *C. septicum* hepatic abscess in patients with liver metastases is also infrequently encountered.

## CASE PRESENTATION

We report a case of a 72-year-old male with **Stage IV colonic adenocarcinoma** with **liver and lung metastases** who presented with a one-day history of fever, abdominal pain, and altered sensorium.

At the emergency room, he was hypotensive, tachycardic and persistently febrile. Initial workup revealed leukocytosis, elevated transaminases, bilirubin and alkaline phosphatase. Due to history of multiple hospitalizations and antibiotic use, he was started empirically on Piperacillin-Tazobactam. CT scan of the whole abdomen was done which showed **multiple air locules within the hepatic lesions**, likely from abscess formation.



**Image 1.** CT Scan of the Whole Abdomen showing multiple air locules in one of the hepatic lesions, likely an abscess formation

He subsequently underwent percutaneous drainage of the hepatic abscess. Blood cultures and anaerobic abscess culture obtained were both positive for *Clostridium septicum*. Intravenous Metronidazole was then added to the initial antibiotic regimen.

## CONCLUSION

*Clostridium septicum* infection should be suspected in patients with colorectal malignancy presenting with sepsis and hepatic abscess. Its identification warrants immediate treatment and emphasizes the importance of screening for underlying gastrointestinal malignancies in cases of unexplained *Clostridium septicum* bacteremia. Early recognition and the combined medical-surgical management remain critical to improving patient outcomes.