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# Streptococcus anginosus Liver Abscess in an Otherwise Healthy 38 y/o Male: A Case Report

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# Streptococcus Anginosus liver abscess in an otherwise healthy 38 y/o male: a case report

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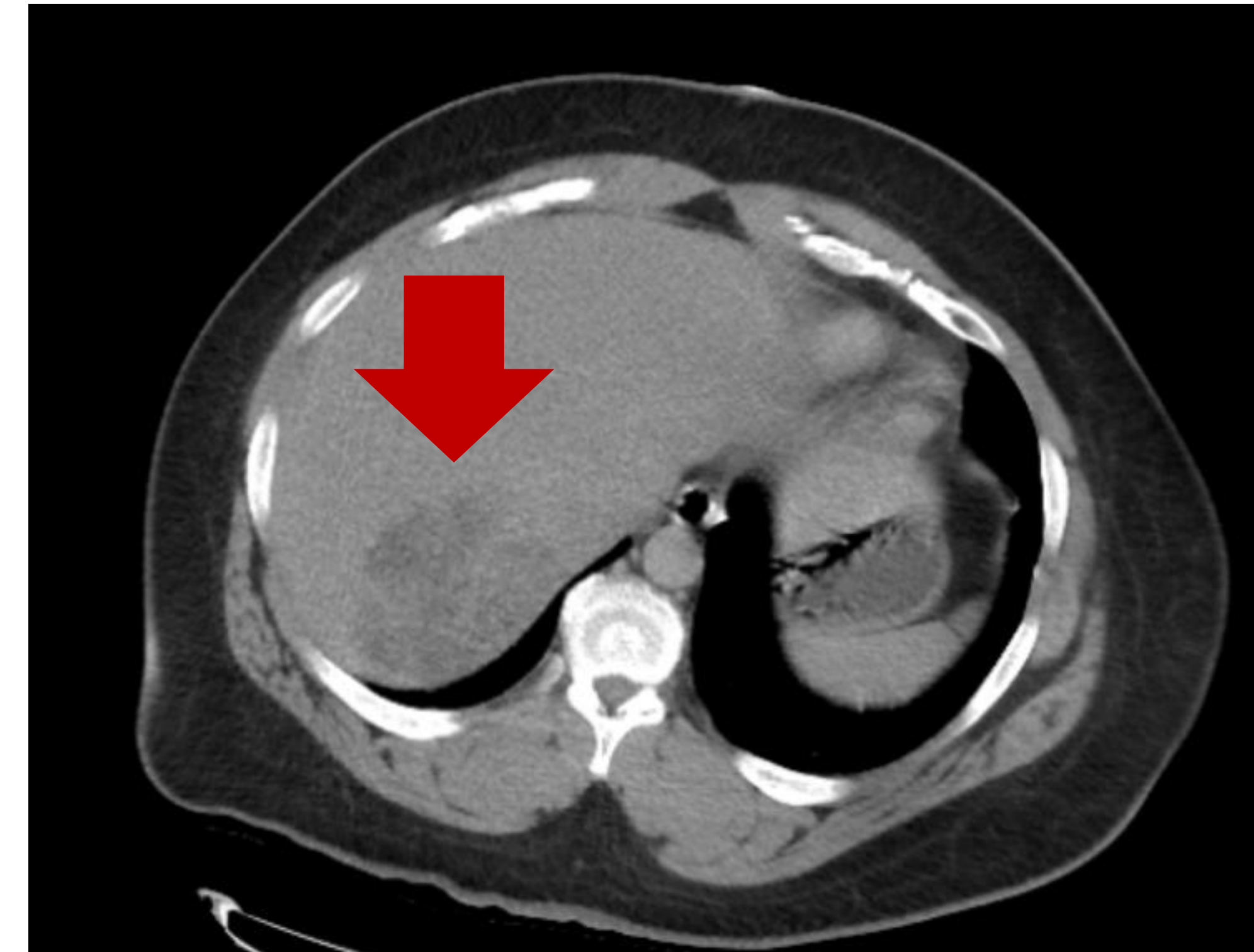
## Background

- Streptococcus anginosus is a member of the Streptococcus milleri group bacteria, and they are facultative anaerobes, Gram-positive, catalase-negative cocci. They are commonly found as part of normal flora in the oral cavity and gastrointestinal tract, and they also normally colonize the upper respiratory and reproductive tracts (1,2).
- Streptococcus anginosus is not often recognized as a causative pathogen. As a result, there is a lack of knowledge of these bacteria as opportunistic pathogens that can cause more serious invasive infections (2). These organisms are unique in their ability to form suppurative infections and the ability to form abscess which differentiates them from Strep pyogenes and Strep agalactaciae..
- Streptococcus anginosus organisms are particularly known to cause periodontal abscess(3,4). But the most common clinical presentations seem to be thoracic infections including empyema, and abdominal infections including liver abscess (1). Liver abscess in itself is uncommon and potentially life threatening (5).

## Case Study

- Patient is a 38 year-old African American male with a past medical history of obstructive sleep apnea that presented to ED with 2-3 days of fever and no other accompanying symptoms. Patient was found to have leukocytosis, transaminitis, and elevated total bilirubin. Patient was admitted for septic workup.
- CT abdomen with contrast was performed and patient was found to have large hepatic dome abscess. IR was consulted and placed drains multiple times. Ultimately patient was placed in ICU for further monitoring and IV antibiotics for strep bacteremia. Patient was also found to have acute on chronic congestive heart failure with reduced ejection fraction (20-25% on 2D ECHO) as well as acute on chronic kidney disease. Patient was noted to have extensive history of dental disease, and maxillofacial CT showed periodontal disease.
- Patient improved clinically and repeat blood cultures were negative. Patient was discharged home with drain and PICC line for continued antibiotics. Patient continued regular follow-up with PCP, infectious disease, cardiology, nephrology, and general surgery and has had significant clinical improvement. He will undergo serial imaging follow-up in 6 months

## Initial Imaging



- 7.7cm x 7.0cm x 5.0 cm Hepatic dome abscess shown
- Above image from CT abdomen/pelvis with contrast

## Pertinent Labs

Admission	Discharge
WBC 15.2	WBC 10.8
LA 3.4	LA <0.5
Cr 2.2	Cr 1.9
ALT/AST 207/229	ALT/AST 89/57

## Discussion

- This case is quite an unusual presentation without obvious source of infection. The position of the abscess in the hepatic dome made it even more difficult to manage and drain. There have been several case reports of these abscesses forming in the liver, but none w/ the dome positioning.
- Secondary to AKI, contrasted scans could not be repeated limiting the ability to demonstrate periodontal disease/abscess. In an ideal scenario, panoramic dental radiographs imaging could be performed. In these scenarios, non-contrasted maxillofacial CT scan will give the best picture.
- These abscesses can take a significant amount of time to cause symptoms and can also take a long time to resolve. Patient's previous dental abscesses were removed greater than one year prior, and while they likely seeded this infection, the patient remained without symptoms until time of presentation.
- This case demonstrates importance of multi-disciplinary care across multiple specialties with need for cardiology, nephrology, general surgery, critical care, and primary care during hospitalization

## Conclusion

- Good dental care is absolutely paramount and rather indolent appearing dental disease can often lead to severe bacteremia or seed distant abscesses. Thorough history taking and physical exam skills can lead to early discovery for root causes of infection

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