

Rare but Fatal: Sepsis from *Streptococcus Constellatus* Bacteremia in the Emergency Department

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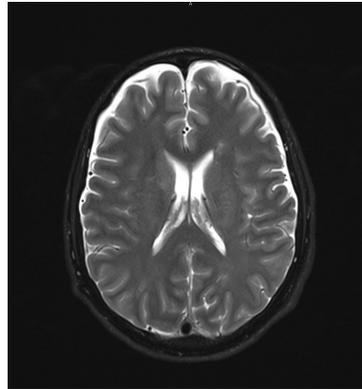
Introduction

Streptococcus constellatus, part of the *Streptococcus anginosus* group, is a rare but aggressive pathogen linked to bacteremia, septic emboli, and multiorgan dysfunction. We present a case of a 35-year-old previously healthy farm worker who developed neurological decline, septic shock, and cardiomyopathy due to *S. constellatus* bacteremia originating from a lower limb DVT.

Case summary

35-year-old previously healthy male farm worker initially presented with severe right lower leg pain and was discharged with analgesics after a normal X-ray. Four days later, he returned with fever, hypotension, hypoxia, and altered mental status (GCS 13), requiring intubation for rapid deterioration. CT chest showed pulmonary hypertension (PE excluded), and CT head was normal. Lower limb ultrasound revealed a partially occlusive thrombus in the right common femoral vein and complete occlusion of the distal popliteal vein. Labs showed coagulopathy, transaminitis, AKI, and hyperbilirubinemia. Blood cultures grew *Streptococcus constellatus*. EEG showed nonspecific changes. CSF analysis revealed neutrophilic pleocytosis with normal glucose/protein and negative PCR, likely impacted by prior antibiotics. Echocardiography showed severe LV dysfunction (EF 25%) consistent with septic cardiomyopathy.

Initial treatment included piperacillin/tazobactam, later escalated to meropenem, vancomycin, acyclovir, oseltamivir, and azithromycin. After pathogen identification, antibiotics were narrowed to ceftriaxone and vancomycin. Despite broad-spectrum therapy and ICU-level supportive care, the patient remained critically ill with persistent neurologic deficits.



Post-contrast FLAIR imaging demonstrates diffuse pachymeningeal enhancement, consistent with meningeal inflammation



Right CFV partial occlusion by floating thrombus

Discussion

This case highlights the systemic impact of *S. constellatus* bacteremia, including encephalopathy likely due to septic emboli, inflammation, or partially treated CNS infection. Persistent neurological decline despite treatment suggests a disseminated process. Though LP was inconclusive—possibly due to prior antibiotics—EEG findings support a systemic cause. The patient's septic cardiomyopathy and pulmonary hypertension further underscore the widespread effects of severe infection.

Conclusion

This case underscores the need for early recognition and aggressive management of *S. constellatus* infections, especially in patients with encephalopathy and systemic signs. Prior antibiotics may mask CSF findings. Clinicians should consider disseminated infection in sepsis with unexplained neurological decline.