



# Austrian Syndrome: A Nasty Triad

Arjun Bagai, DO, Dhruv Patel, DO, Jeongwon Lee, DO, Omar Raza, DO,  
Dureshahwar Ali, DO, Vikas K. Patel, MD, Tarun Jain, MD, Michael J. Anderson,  
MD

Riverside Medical Center, Kankakee, Illinois



## Background

Austrian Syndrome consists of the triad of endocarditis, pneumonia, and meningitis. We present a case of a patient presenting with the triad with the initial presentation of back pain.

## Case Presentation

A 68-year-old male with past medical history including alcohol use disorder, tobacco use disorder, history of iliac artery and subclavian artery aneurysms presents with low back pain. The pain was sharp in nature and radiated to the right side of the abdomen and right thigh. Patient met SIRS criteria. Physical exam was notable for weakness of the right lower extremity. In addition, a murmur was heard and splinter hemorrhages were present. CT lumbar spine was done which showed degenerative changes of L4-L5. MRI lumbar showed similar findings.

## Decision-Making

Initially, patient was started on broad-spectrum antibiotics with Zosyn and Vancomycin. Blood cultures grew *Streptococcus pneumoniae*, patient was switched from Zosyn to ceftriaxone. Transthoracic echocardiogram (TTE) was done which did not show any vegetation. However, given the bacteremia it was decided to proceed with transesophageal echocardiogram (TEE). TEE revealed a 0.95 cm small linear mobile echodensity on the tip of the aortic valve on the LVOT side. During the course of the hospitalization, the patient also had neck stiffness. Patient was started on Decadron to empirically cover for *Streptococcus pneumoniae* meningitis given the presence of the organism in the blood.

## Aortic Valve Endocarditis

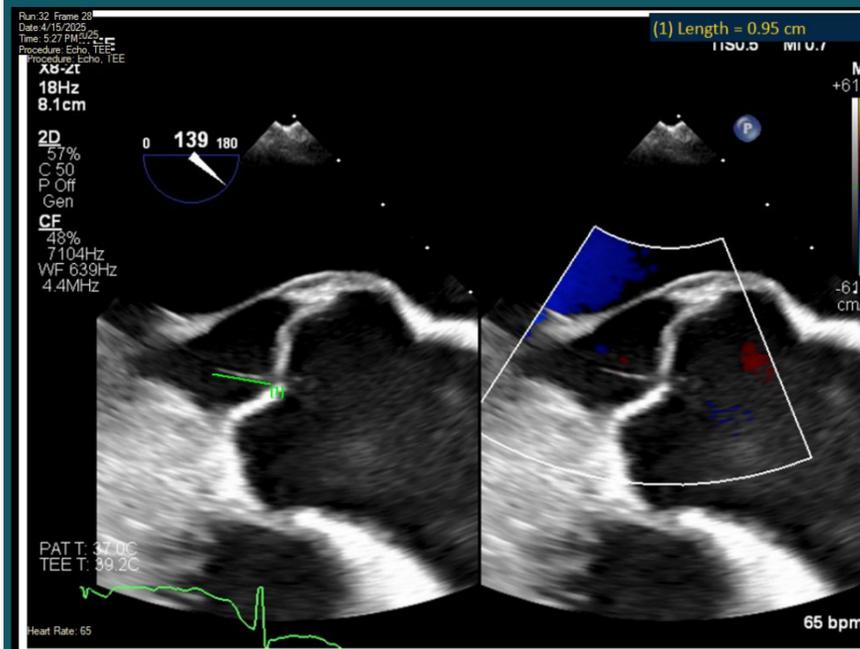


Figure 1: TEE revealed a 0.95 cm small linear mobile echodensity on the tip of the aortic valve on the LVOT side.

## Decision-Making Continued

CT chest was done which revealed bibasilar consolidations with air bronchogram in the left lower lobe. Given the lumbar spine findings, the patient could not undergo a lumbar puncture to confirm the diagnosis of meningitis. Repeat blood cultures were negative. Patient was discharged with IV ceftriaxone.

## Conclusions

Austrian Syndrome has a high mortality rate as high as 60-75%. It is commonly found in males and those with alcohol use disorder. The workup showed that the patient had pneumonia and endocarditis in the setting of *Streptococcus pneumoniae* infection and while a lumbar puncture was not performed, the patient had meningeal signs. It is important to have a high clinical suspicion for Austrian Syndrome as it has a high mortality rate if not promptly treated. While lab testing and imaging can help support the diagnosis, it is not always possible to obtain all the testing.

## References

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## Disclosure Information

Nothing to disclose