



# Extensive Bioprosthetic Aortic Valve Annular Abscess

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# Introduction

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- Infective endocarditis (IE) usually presents as a subacute infection of the heart valves
  - Risk factors: prosthetic hardware, artificial heart valves, vascular access catheters, IV drug use
- Best evaluated with echocardiography
- Prolonged IV antibiotics are the treatment of choice unless patient meets indication for surgery
  - Signs of acute heart failure, large vegetation, etc...



# Case Presentation

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- A 75-year-old male with a past medical history of aortic stenosis status-post bioprosthetic aortic valve (AV) replacement presented with back pain.



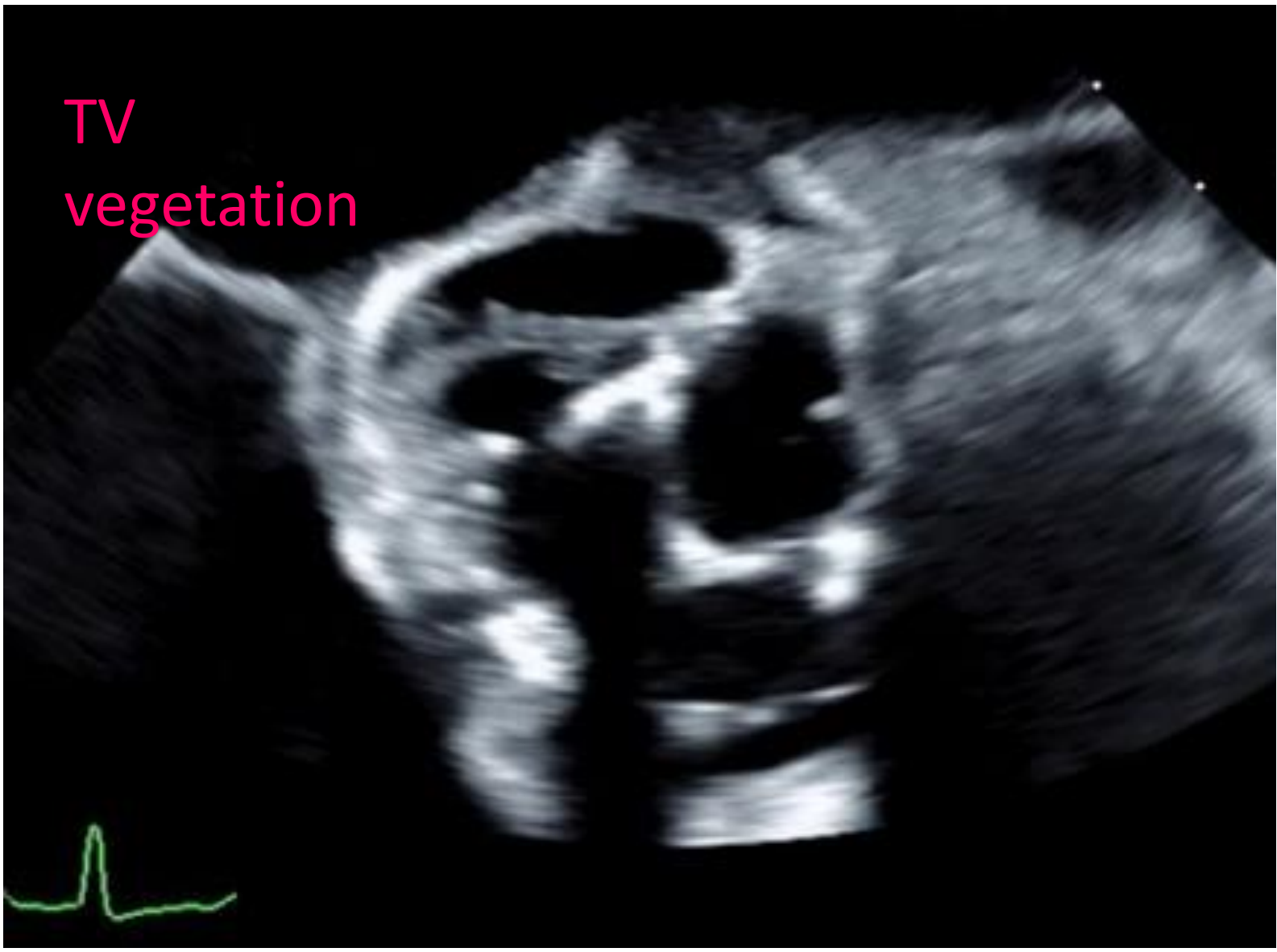
# Case Description

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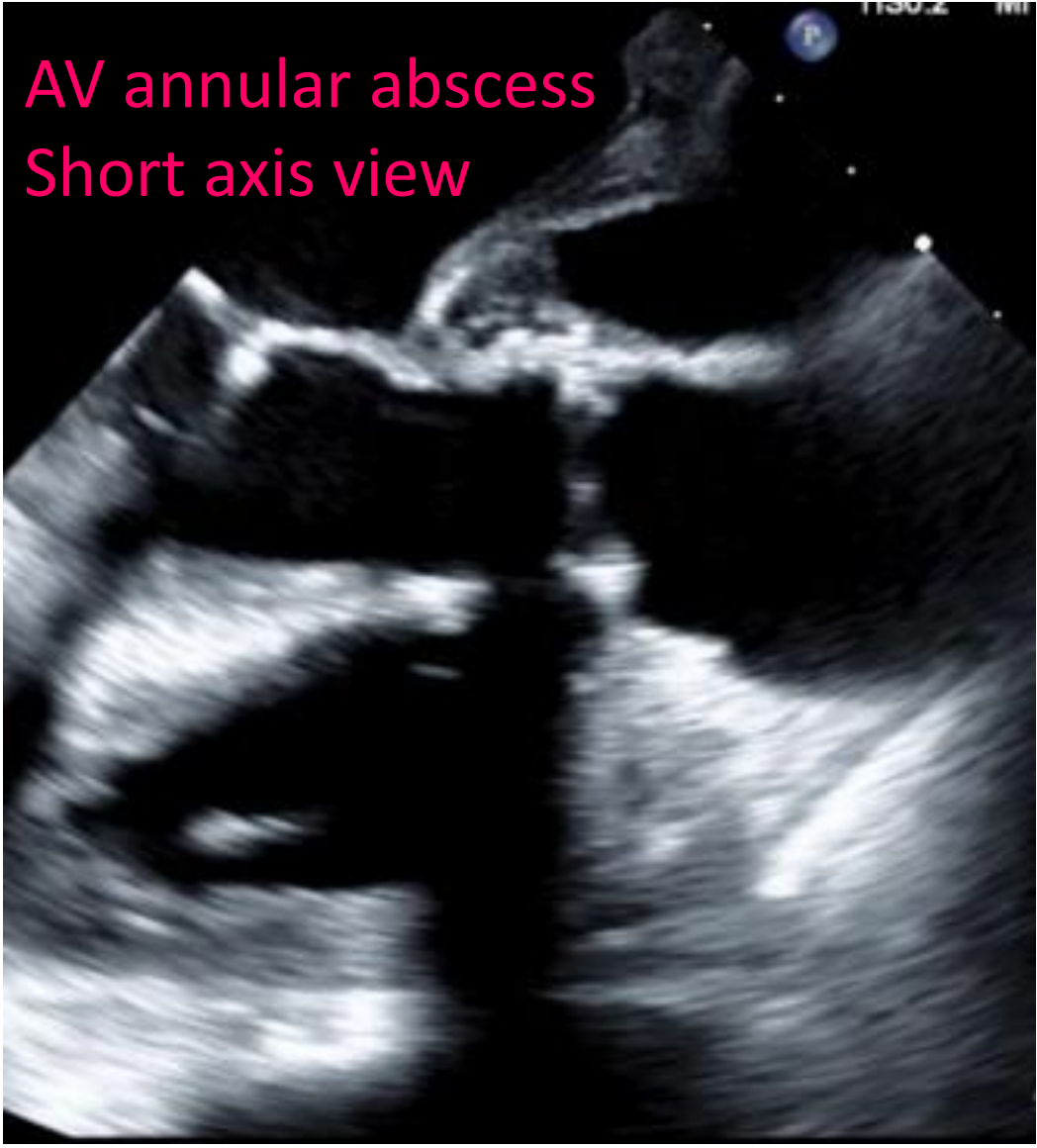
- Admission labs notable for AKI, shock liver, leukocytosis, lactic acidosis
- Blood cultures grew *Enterococcus faecalis*
- Transthoracic echocardiography: mobile mass involving the tricuspid valve (TV).
- Transesophageal echocardiography: large bioprosthetic aortic valve annular abscess extending into the ascending and descending aorta



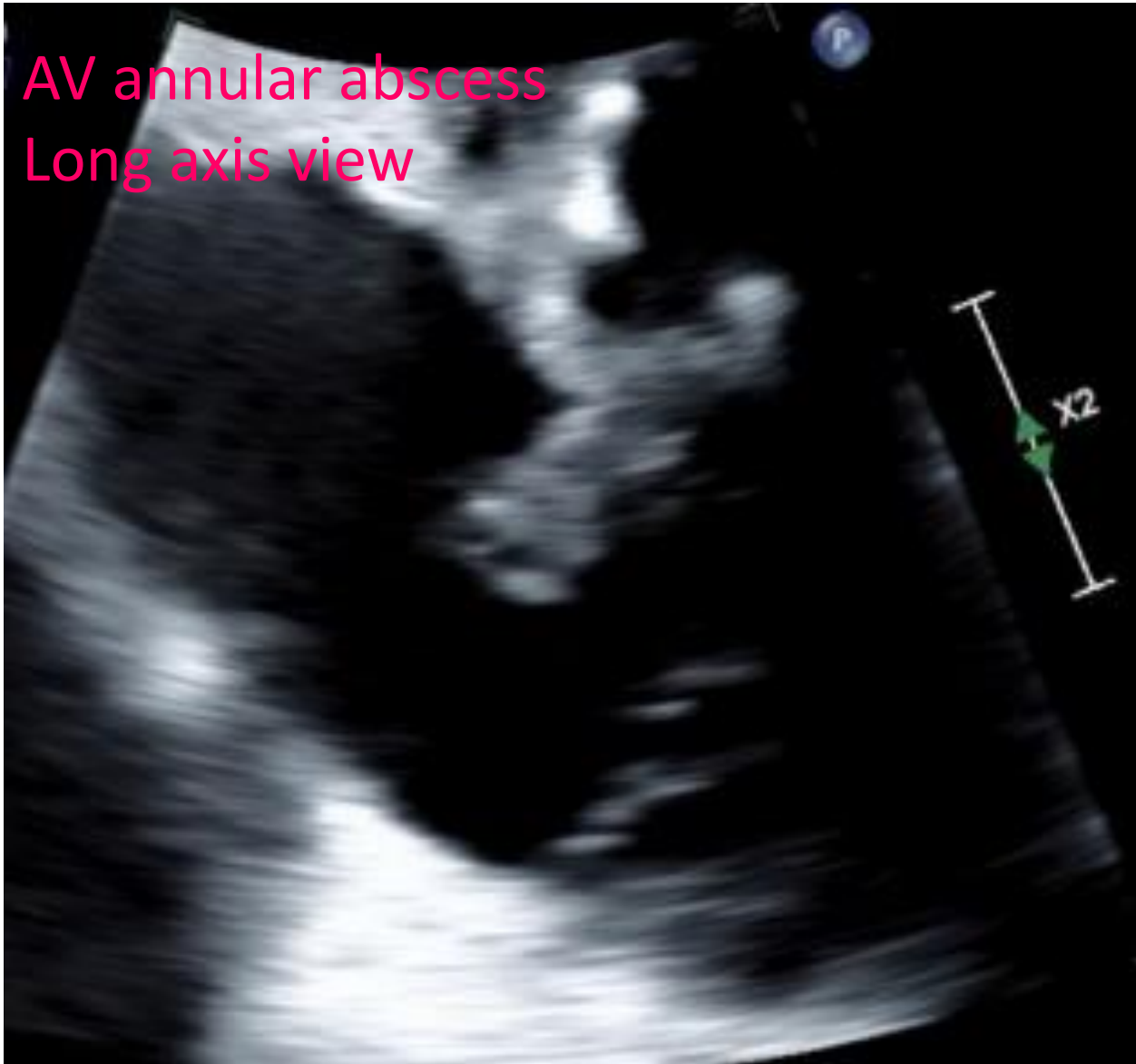
TV  
vegetation



AV annular abscess  
Short axis view



AV annular abscess  
Long axis view



# Case Description

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- Patient taken to the OR
- Direct visualization confirmed native TV endocarditis and an ***AV annular abscess eroding into the atria and left ventricular outflow tract (LVOT) to the level of the descending aorta***
- Underwent AV/LVOT abscess debridement, repair of aortic root using autologous pericardium with coronary reimplantation, and TV debridement and repair





# Case Description

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- Postoperative course complicated by ventricular tachycardia and refractory cardiogenic shock.
- Transferred to an outlying facility for extracorporeal membrane oxygenation (ECMO) support, but ultimately passed away
- Two weeks prior to this admission, the patient underwent transthoracic echocardiography for new onset atrial fibrillation which demonstrated ***a bioprosthetic aortic valve with normal pressure gradients and without vegetation.***



# Discussion

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- Impressive local extent of abscess with aggressive nature of the infection given negative imaging just weeks prior.
- This case illustrates the need for rapid identification, early initiation of treatment, and availability of post-operative mechanical support for patients with bioprosthetic valve abscess from endocarditis



# References

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Ramos Tuarez FJ, Yelamanchili VS, Law MA. Cardiac Abscess. [Updated 2020 Jul 17]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK459132/>

