

DOUBLE VALVE REPLACEMENT IN THE SETTING OF BACTERIAL ENDOCARDITIS

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INTRODUCTION

Bacterial endocarditis is a feared complication in patients who use intravenous drugs. Antibiotic therapy is often the mainstay of treatment.

If patients remain bacteremic despite appropriate antibiotic therapy, surgical intervention is often considered.

We describe a patient who had both mitral and tricuspid endocarditis who required surgical intervention for definite management involving her infection.

Clinical Course

A 25 year old female with a past medical history of intravenous drug abuse presented to our facility's emergency department with a chief complaint of generalized body pain. A bedside echocardiogram was performed that demonstrated initial concerns for mobile vegetations involving both the mitral and tricuspid valves. She was started on intravenous antibiotic therapy.

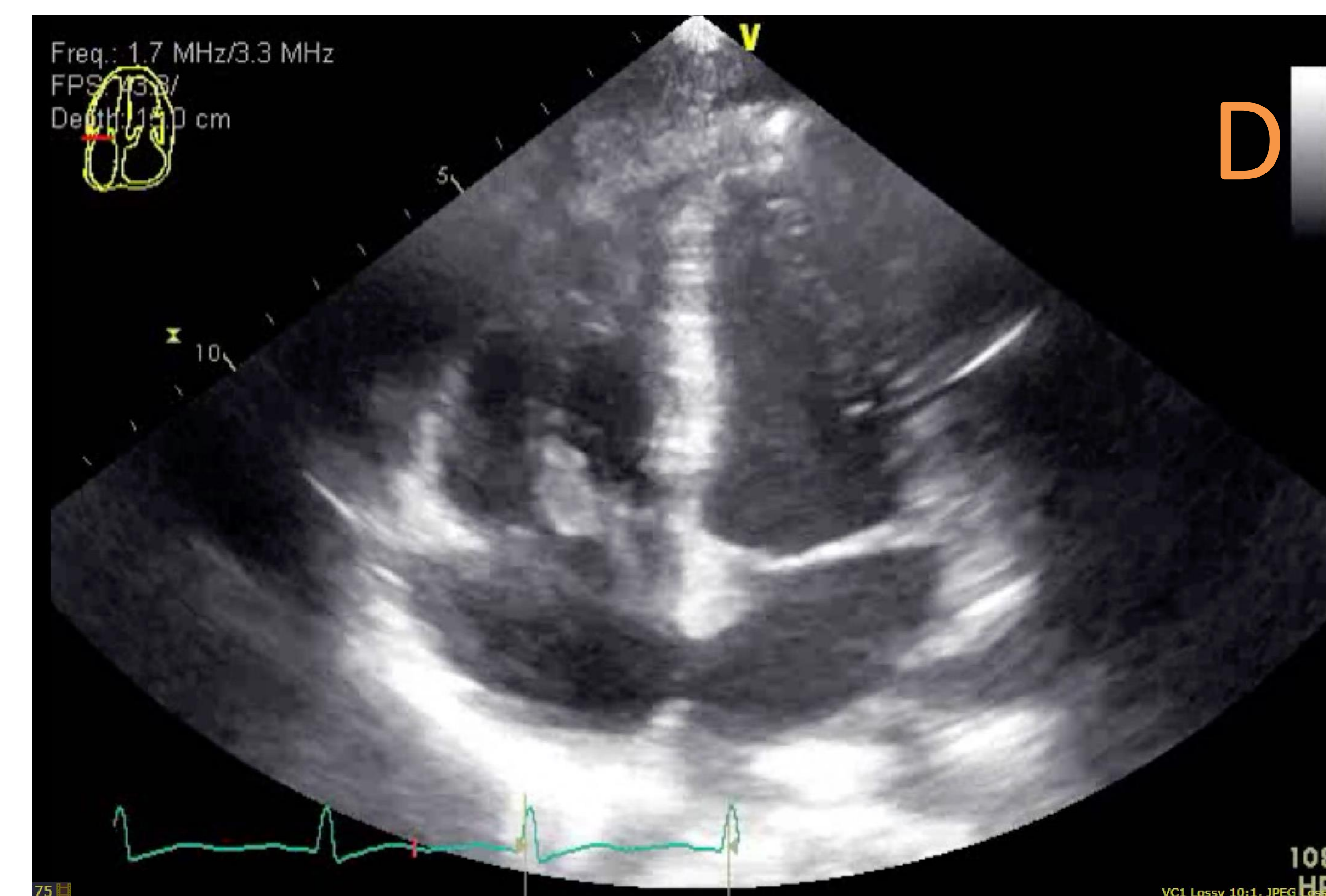
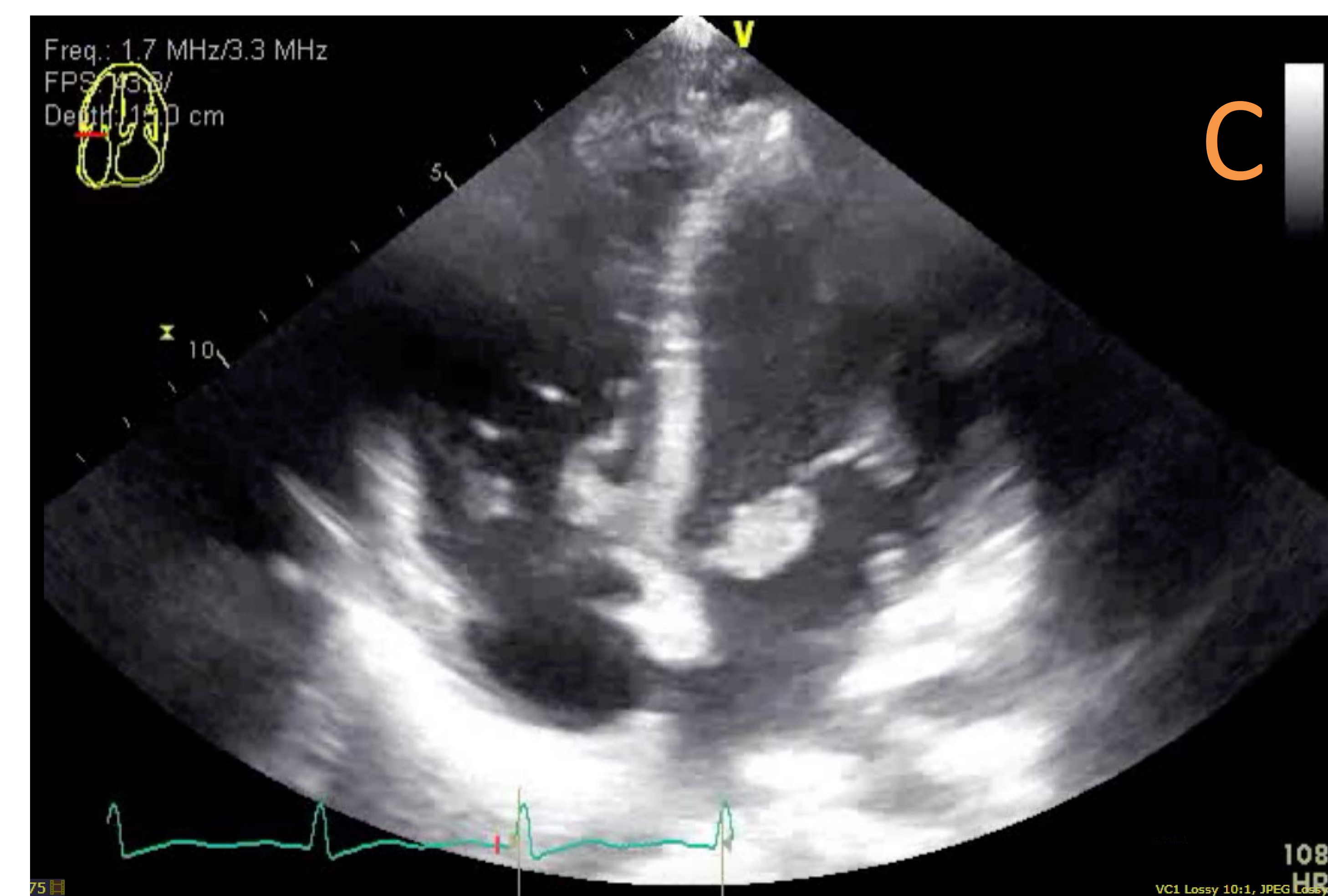
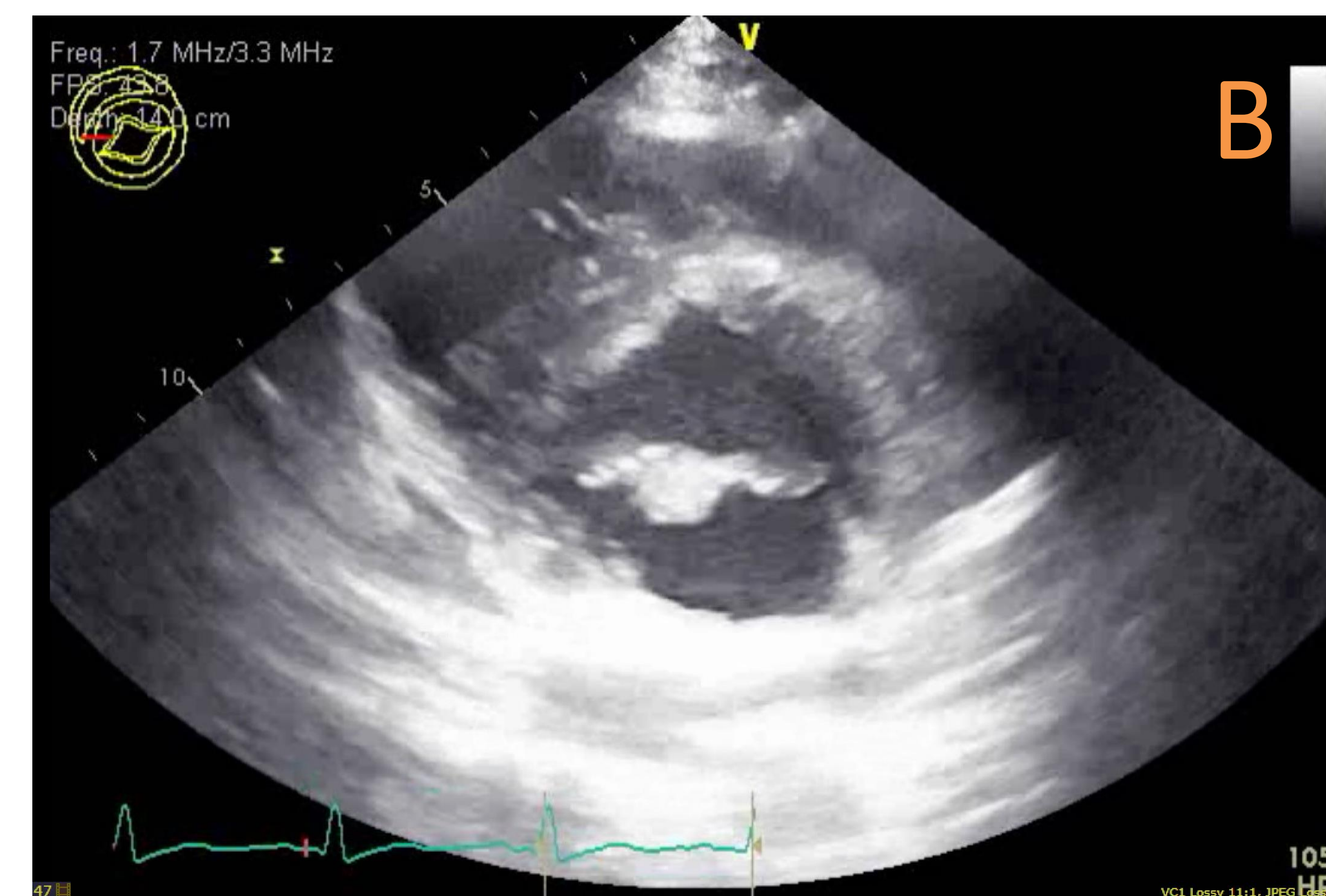
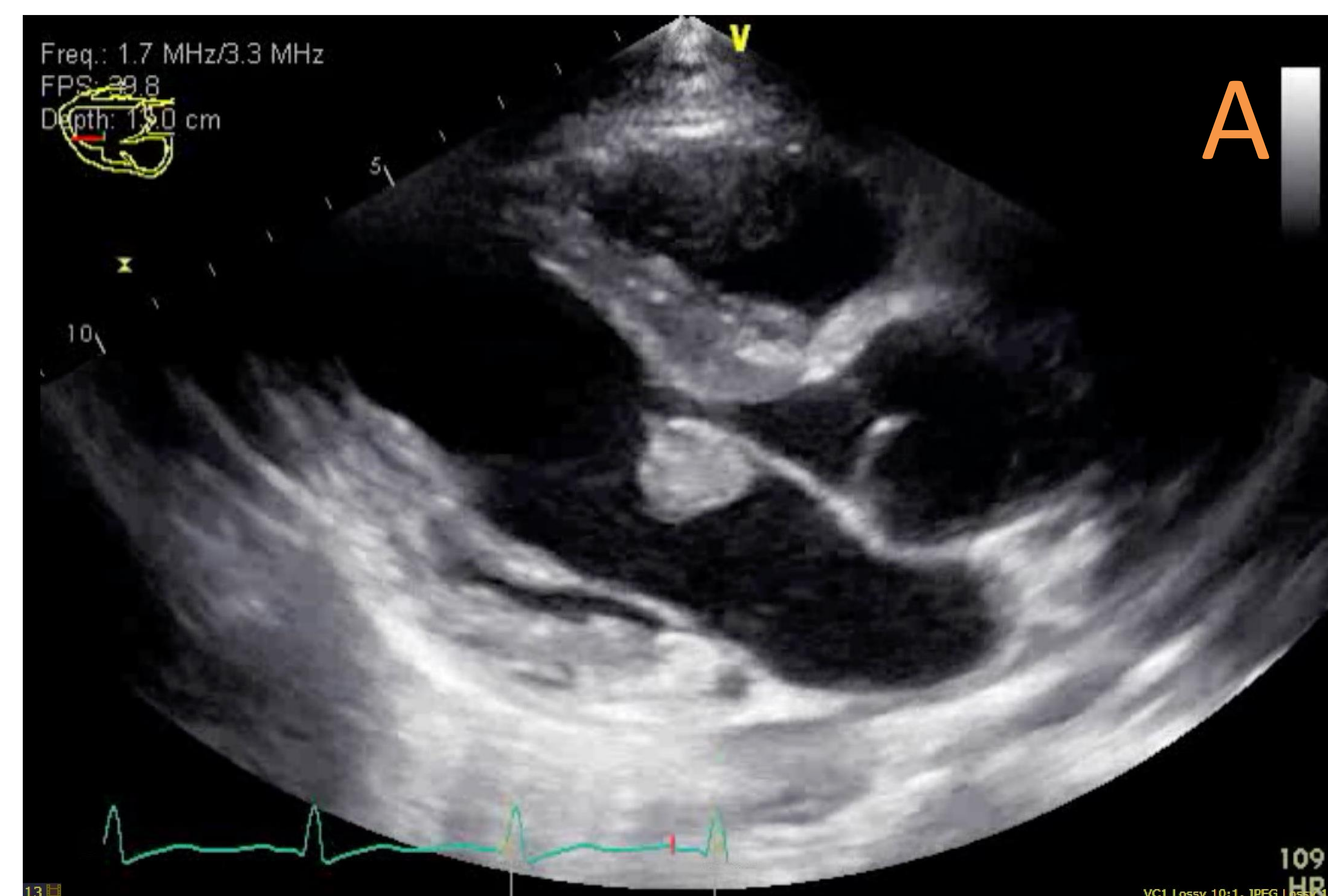
Blood cultures were performed that demonstrated methicillin-sensitive staphylococcus aureus. A formal transthoracic echocardiogram was performed that demonstrate large vegetations on both the mitral and tricuspid valves with severe regurgitation associated with both valves.

Cardiothoracic surgery was consulted who recommend intravenous antibiotic therapy due to her significant drug abuse and high concerns for relapse.

While hospitalized, she developed refractory bacteremia despite appropriate intravenous antibiotic therapy. Due to her persistent bacteremia, cardiothoracic surgery recommended invasive management with mechanical mitral and tricuspid valve replacement.

Surgery was planned for definite management for her infective endocarditis.

Figures



Figures: TTE Parasternal long axis view demonstrate a large vegetation on the tricuspid valve (A). Parasternal short axis of the mitral valve demonstrating a large vegetation involving the mitral valve (B). Apical 4 chamber demonstrating significant vegetation involving the mitral valve (C). Apical 4 chamber demonstrated significant vegetation involving the tricuspid valve (D).

References

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Clinical Course

Patient underwent a double valve surgery and received a mitral valve replacement with a 27mm mechanical Onyx valve and a tricuspid valve replacement with a 29mm mechanical Saint Jude valve.

She tolerated surgery well. She was started on intravenous anticoagulation and successfully bridged to Warfarin.

The patient completed her course of intravenous antibiotics with Nafcillin and was discharged in stable condition.

Discussion

Bacterial endocarditis is a known and feared complication of intravenous drug abuse and bacteremia.

In this case, we identify a patient who was persistently bacteremic with large vegetations who met criteria for early invasive management for her valvular infection.

This case demonstrated a patient who successfully underwent double valve surgery which can carry a high mortality.

Our patient did exceptionally well given her significant valvular disease and surgical intervention.

While morbidity and mortality of double valve surgery remains high, it can often reduce the long-term mortality of those suffering from infective endocarditis.

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