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# The Culprit Catheter

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Disclosures: None

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- Dr. Judy Rizk, M.D.
- Prof. Dr. Sanaa Ashour, PhD.



## History

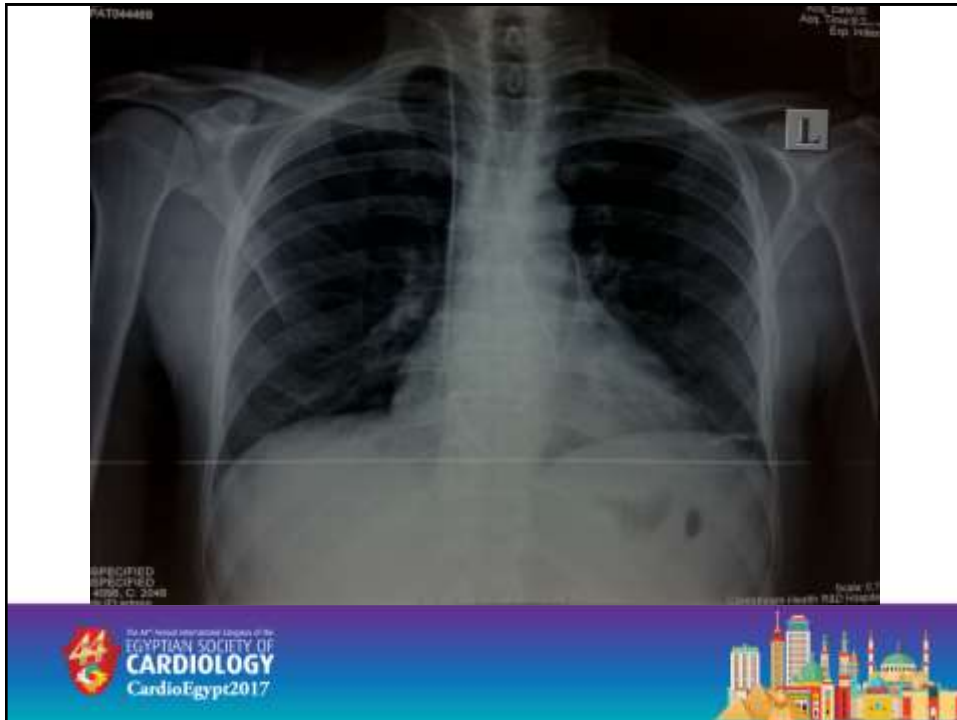
- A 50-year-old male patient with no previous medical history presented to our hospital complaining of high grade fever with gradual onset and stationary course with no response to antipyretics and antibiotics for 1 week.
- Work-up for fever was unremarkable, fever subsided after giving intravenous antibiotics for 3 days then the patient developed hypotension, blood pressure was 70/40 mmHg, heart rate was 140 beats per minute, electrocardiogram showed sinus tachycardia, liver enzymes were elevated, serum bicarbonate level was very low so the intensive care specialist inserted a central venous catheter (CVC) to guide his fluid status control.



## History

- Chest X-ray (CXR) was done a day later after CVC insertion and astonishingly we found the introducing guide wire left inside his heart starting from the right internal jugular vein towards the right atrium and ventricle making a loop inside the pulmonary artery then down through the inferior vena cava towards the hepatic vein.

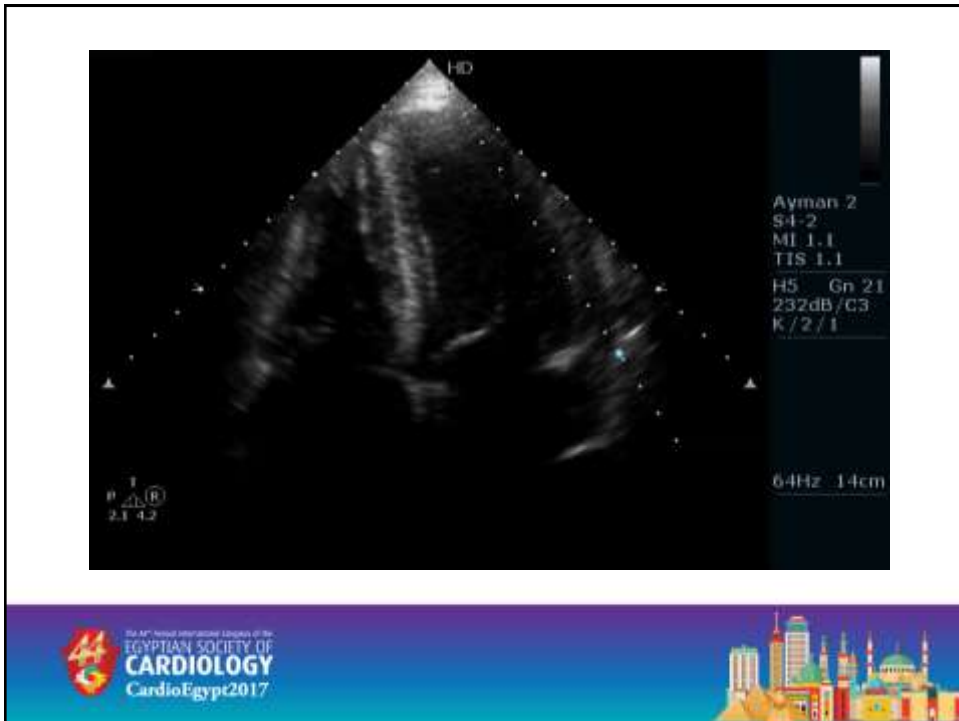
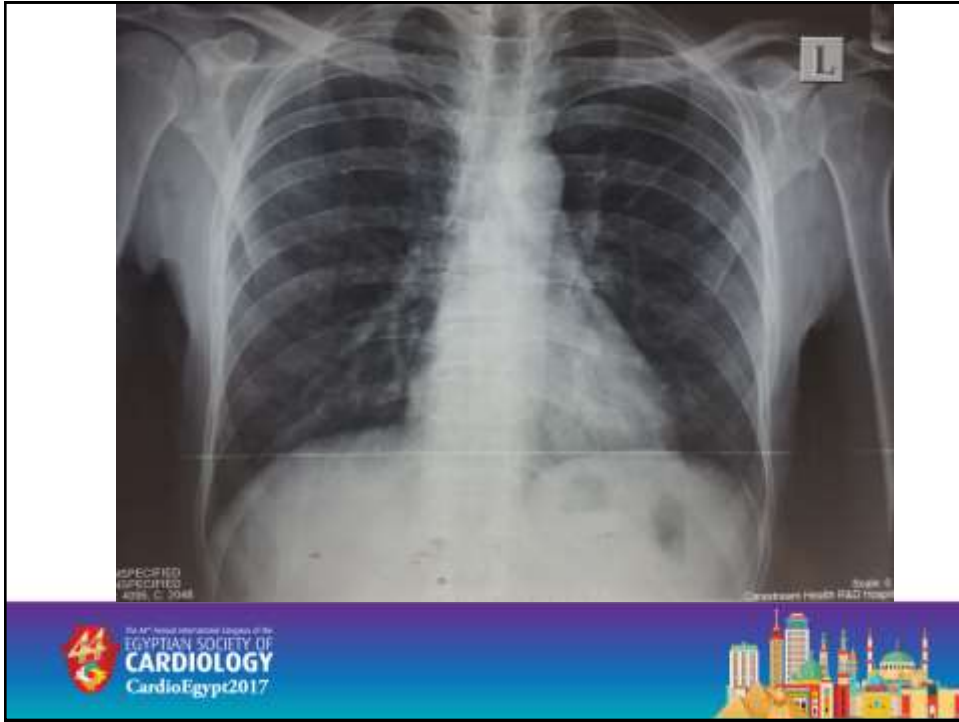


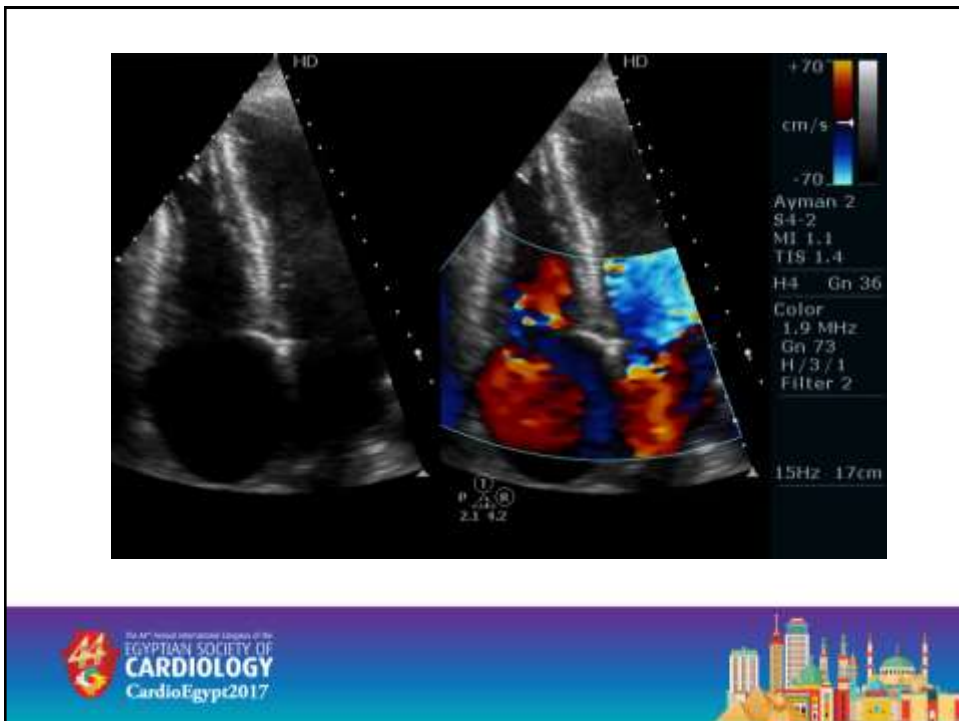
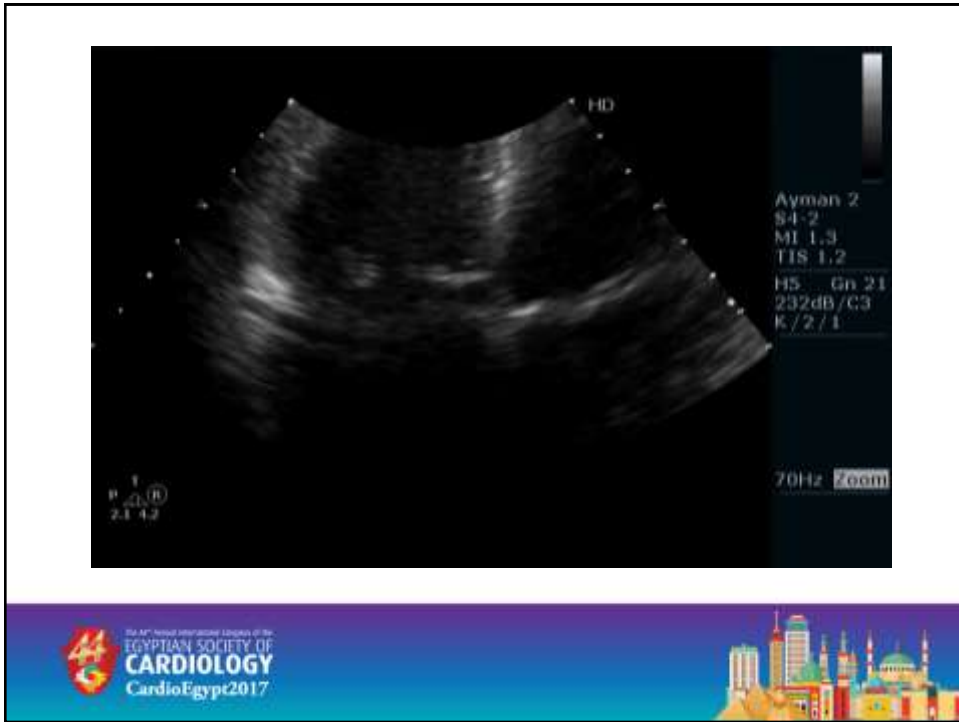


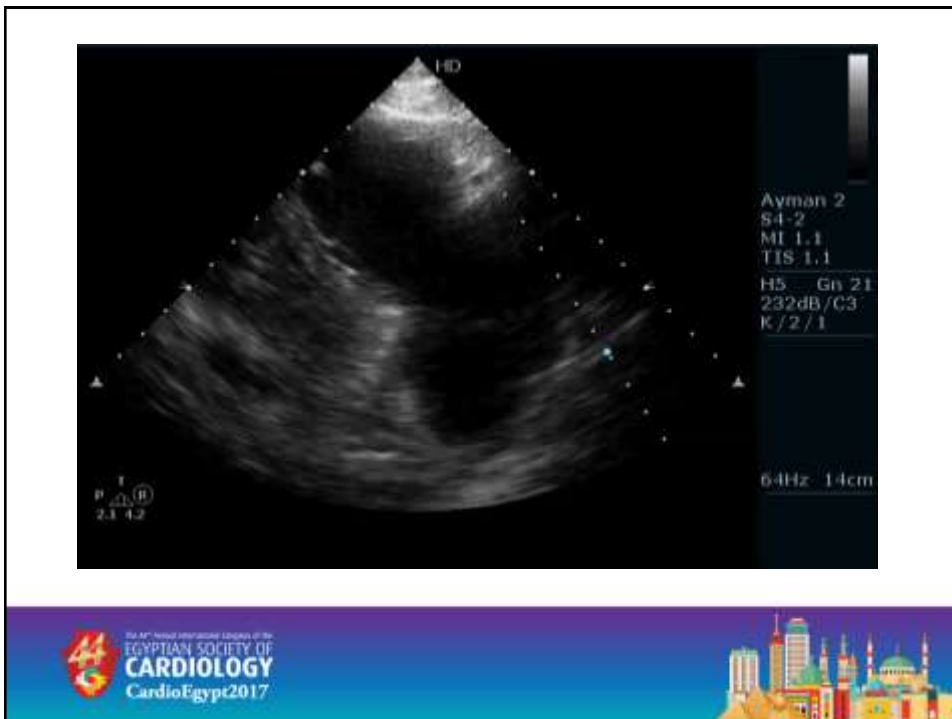
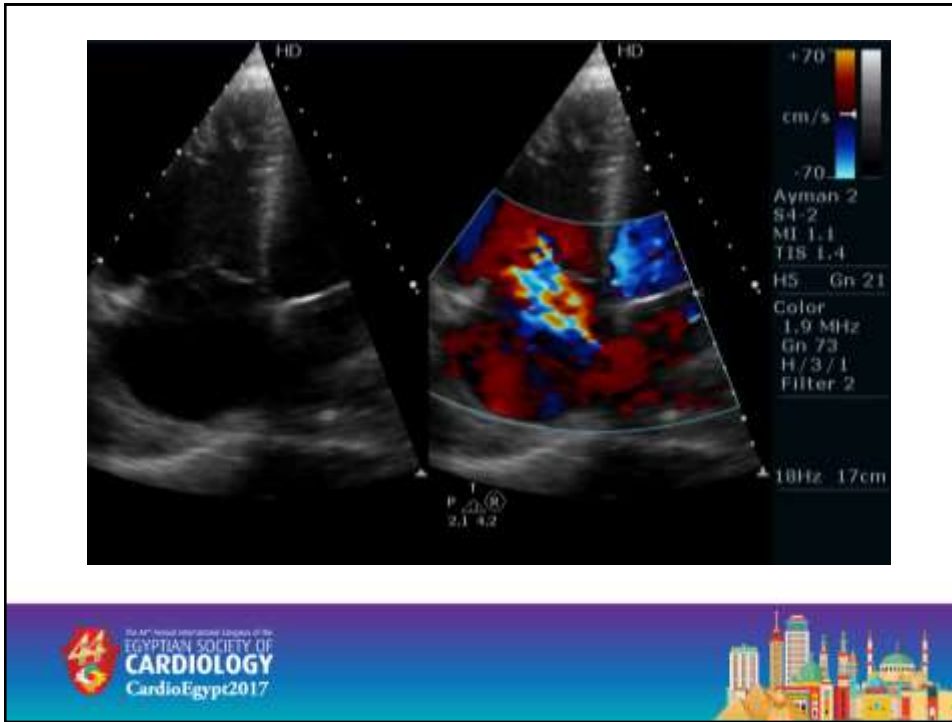
## History

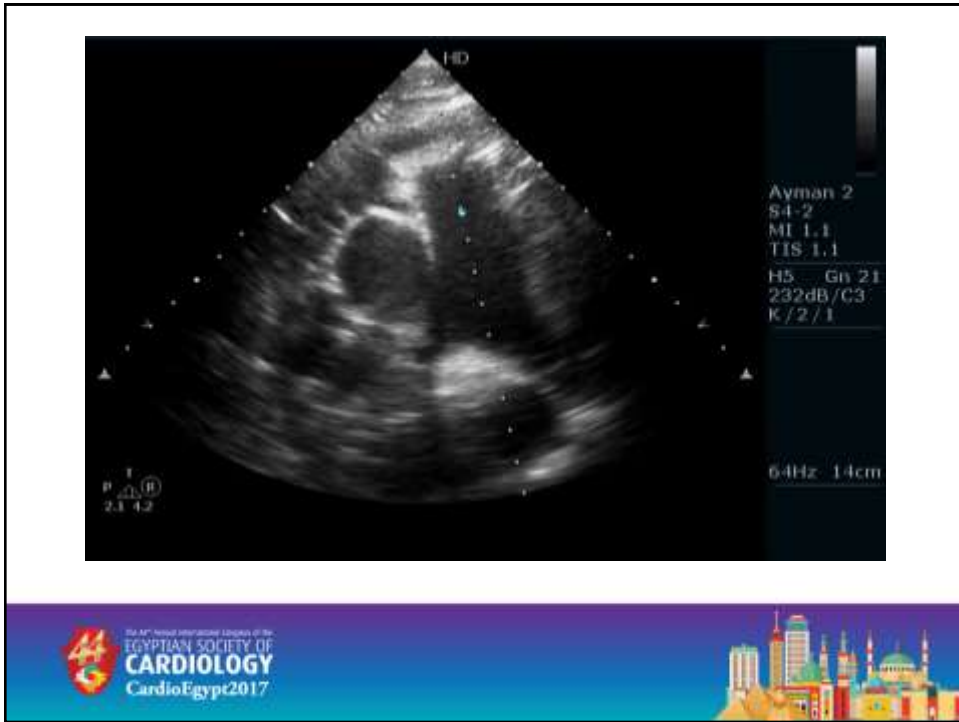
- The lost wire was retrieved blindly without fluoroscopic guidance and follow-up X-ray showed no residual wire parts, then he was referred to us for echocardiography.

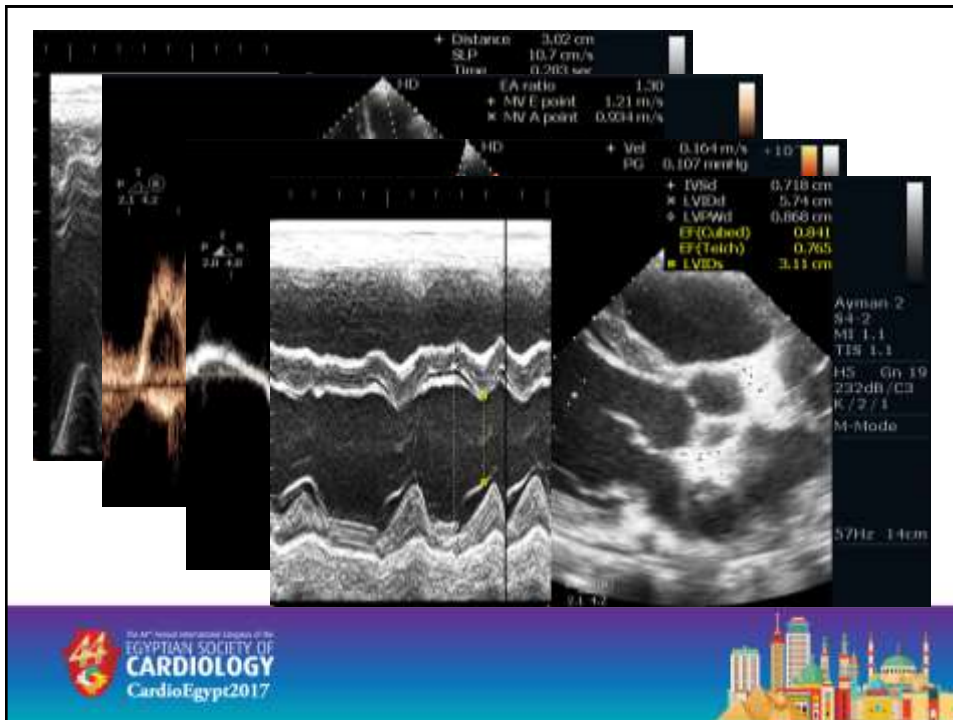








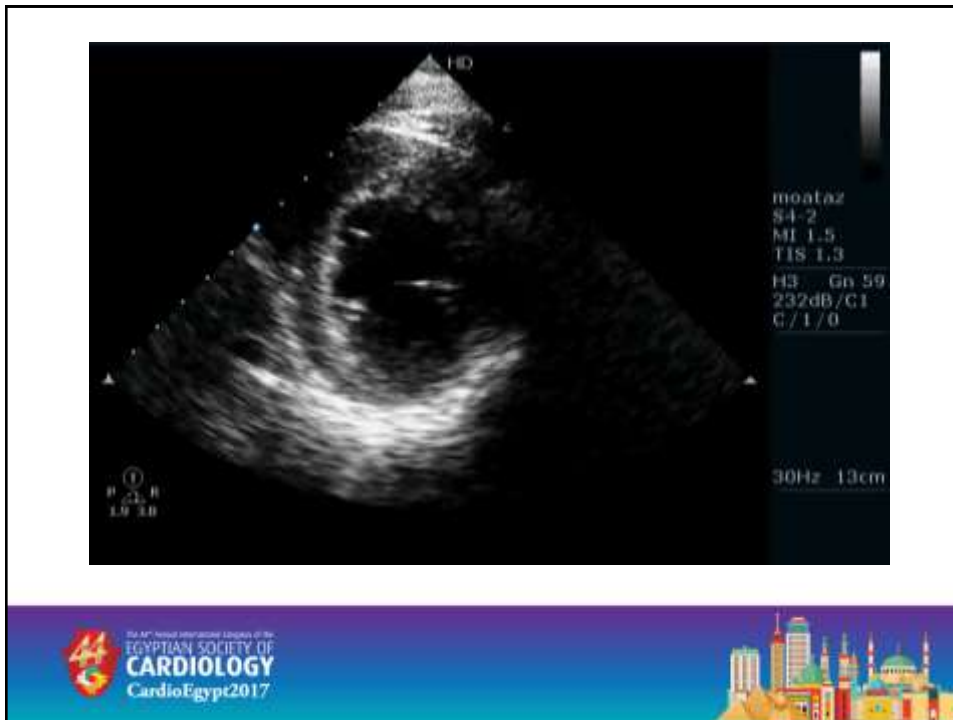




## Follow Up

- Patient was in persistent shock on maximal doses of vasopressors.
- Blood cultures were all sterile.
- Follow up Echocardiography revealed deterioration of the left ventricular systolic function.
- Few days later the patient unfortunately died.





## Discussion

- To our knowledge, this is the first reported case of Tricuspid valve perforation and regurgitation after CVC insertion and lost guide wire.
- Also by reviewing the available literature, there is no known explanation for the development of heart failure in this reported case.



## Take Home Messages

- Although CVC insertion complications are very rare, we should take extreme care during insertion and maintenance.
- CVC insertion complications are preventable if we follow the precautions for safety during insertion.

