PO-642-05

TENSION HEMOTHORAX DUE TO APICAL LEAD PERFORATION TWO YEARS AFTER IMPLANTATION

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Background: Late myocardial perforation secondary to a pacemaker lead is a rare, but potentially life-threatening complication.

Objective: Report a case of tension hemothorax secondary to lead perforation more than two years after implantation.

Methods: N/A

Results: A 76-year-old male with a prior surgical aortic valve replacement, mitral clip and a pacemaker, placed over two years ago, presented with acute onset left sided stabbing chest pain. Vitals were stable with mild volume overload on exam. The admission EKG showed atrial tachycardia with controlled ventricular response. The chest x-ray and echocardiogram were unrevealing. Two days later, he became hypoxemic. EKG showed evidence of ventricular under sensing and intermittent failure of ventricular capture. Interrogation of the device confirmed ventricular lead malfunction with failure to capture at high output. Repeat chest x-ray showed a new left pleural effusion and the chest CT showed an expanding hemothorax with lead perforation into the left pleural space. A few hours later, the patient became hemodynamic unstable secondary to tension hemothorax. In surgery, the right ventricular lead was found to penetrate through the septum and apex into the left hemithorax (Figure). Three liters of blood were evacuated from pleural space and the ventricular apex and septum were repaired. The existing leads were extracted with laser assistance and a new ventricular and atrial lead were placed. Postoperative device interrogation showed 100% ventricular pacing and normally functioning leads. There were no postoperative complications and the patient was discharged on fifth postoperative day.

Conclusion: We report a case of a very delayed ventricular perforation and lead migration post pacemaker implantation.

PO-642-06

A PULMONARY VEIN ISOLATION WITH WIDE AREA CIRCUMFERENTIAL ABLATION AND BILATERAL CARINAL LINE ABLATION VIA TRANSHEPATIC APPROACH

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Background: Catheter ablations for atrial fibrillation (AF) are conventionally performed with femoral venous access. In patients with the femoral vein access issues, alternative accesses can be considered.

Objective: We report a case of pulmonary vein isolation with wide area circumferential ablation (WACA) and bilateral carinal line ablation via transhepatic approach

Methods: N/A

Results: A 64-year-old woman with persistent AF for 8 years presented to our institution after unsuccessful rhythm control elsewhere with an inability to pass the catheter into the right atrium from the inferior vena cava. A CT scan confirmed congenital absence of the inferior vena cava with dilated azygous veins (Fig 1A). A transhepatic approach for AF ablation was offered. The hepatic vein was cannulated with contrast under ultrasound and fluoroscopic guidance, passing a wire to the superior vena cava. A significantly reshaped Baylis transseptal needle was used through a SL1 long sheath for transeptal puncture (Fig 1B) guided by intracardiac echocardiogram from internal jugular vein access (Fig 1C). The coronary sinus catheter was later placed through this access. The HD Grid catheter was used for 3D mapping and later exchanged for a 4 mm Tacticath bidirectional irrigated tip catheter, which was used for the WACA and carinal ablation. Entrance and exit block for each pulmonary vein was demonstrated. A 10-mm Amplatzer plug was placed within the transhepatic access site tract using ultrasound and fluoroscopic guidance (Fig 1D).

Conclusion: The hepatic veins are large enough to accommodate the sheaths and catheters meant for a femoral venous approach. In selected patients, the transhepatic approach can be considered for ablation of AF.

PO-642-07

ATRIAL STANDSTILL: A RARE COMPLICATION OF CORONARY VASOSPASM FOLLOWING SURGICAL AORTIC VALVE REPLACEMENT

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Background: Atrial standstill is a phenomenon characterized by the absence of both electrical and mechanical atrial activity, resulting in complete lack of excitability. Identified causes include drugs, electrolyte abnormalities, hypoxia, and myocardial infarction.

Objective: This case reveals atrial standstill as a newly described complication of coronary artery vasospasm after