

Title: Percutaneous Drainage via Normal Variant Sternal Foramen

Our patient was an 81 year-old female with a history of multiple esophageal dilations with a large distal esophageal perforation, status post fully covered metal stent placement. CT Thorax showed a mediastinal fluid collection exerting mass effect on the right heart and a sternal foramen (Fig 1, arrow). Interventional Radiology was consulted for drainage.

Utilizing Seldinger technique, a 10-Fr catheter was placed through the sternal foramen into the mediastinal fluid collection (Fig. 2 and 3), and the fluid collection was aspirated with resolution of mass effect on the heart. A sternal foramen is a developmental variant that is present in approximately 5% of the population and results from incomplete fusion of the sternal ossification centers. In this case it allowed safe percutaneous drainage of the mediastinal fluid collection, avoiding risk of injury to the internal mammary vessels or intervening lung parenchyma which could have occurred with a parasternal approach.

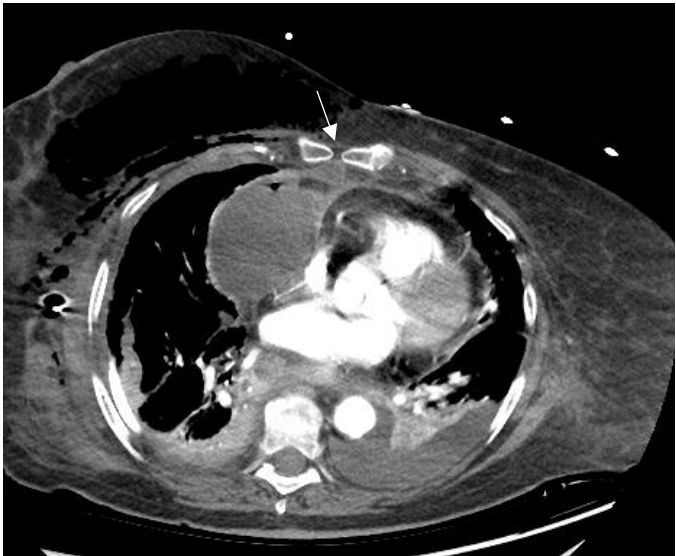


Fig. 1 Diagnostic CT showing sternal foramen



Fig. 2: Introducer (5-Fr) traversing the sternal foramen



Fig. 3 Catheter (10-Fr) traversing the sternal foramen