



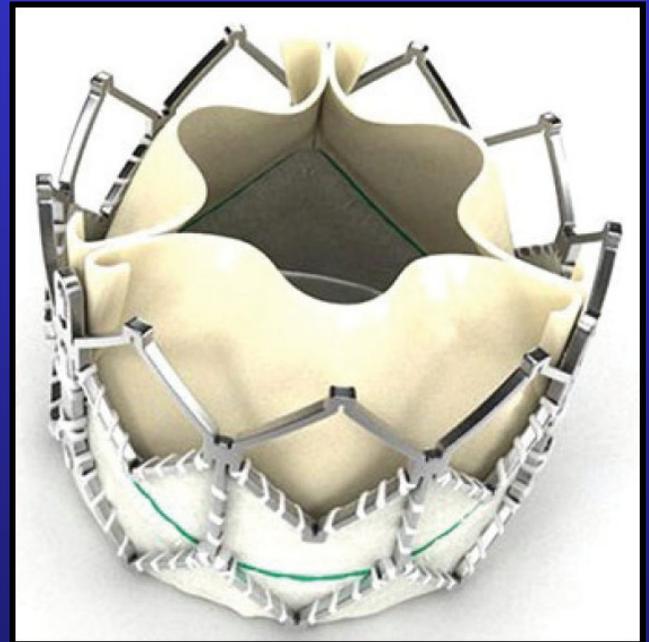
Case of the Day December 2014

Case courtesy of Dr. Zameer Hirji and Dr. Steve Ryan



CLINICAL HISTORY

- 83 year old female with severe aortic stenosis
- Hypertension, dyslipidemia and smoking
- Transcatheter aortic valve replacement with Edwards Sapien XT valve arranged



Edwards SAPIEN, Edwards Lifesciences,
Irvine, CA, USA

PROCEDURAL DETAILS

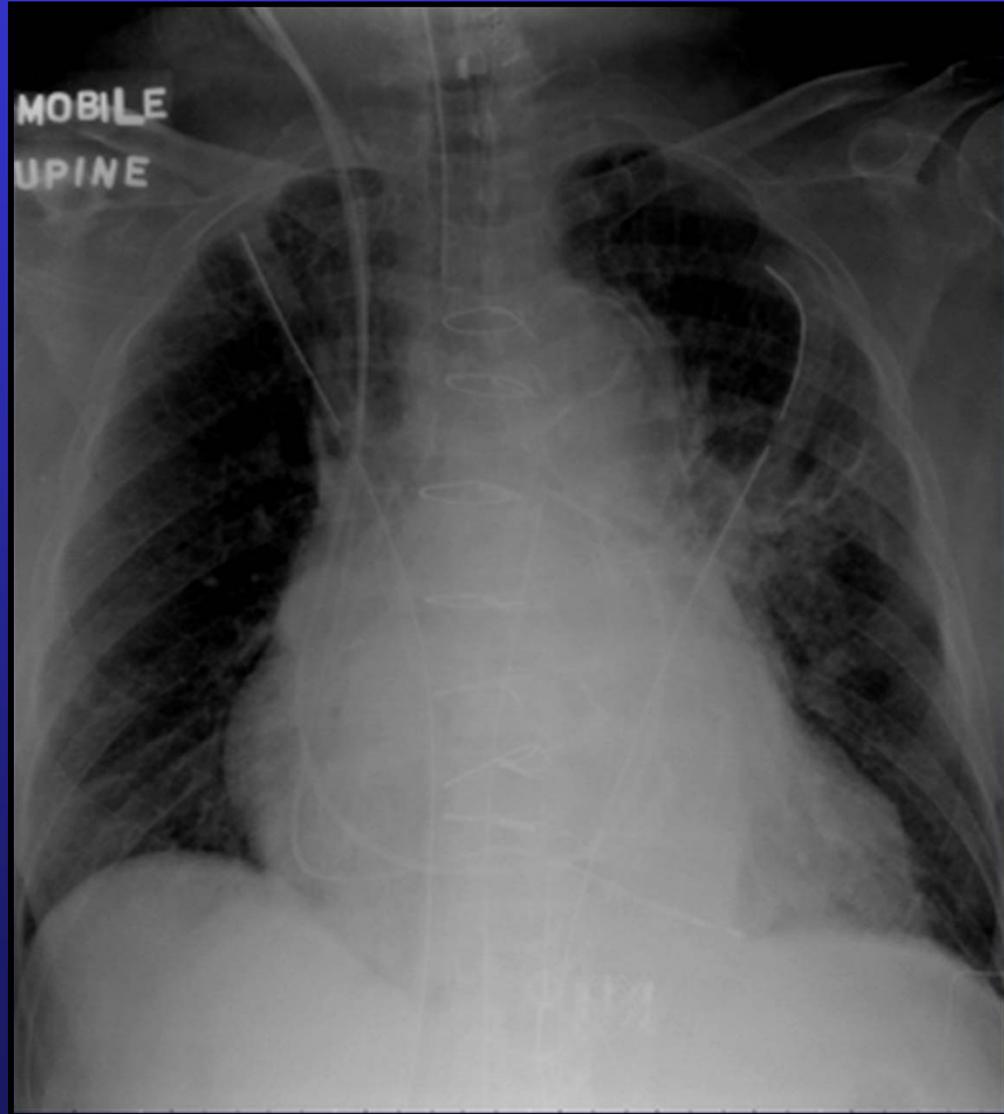
- Arterial access via femoral artery and minithoracotomy
- Aortic valvuloplasty followed by placement of new aortic valve which was placed too high resulting in moderate regurgitation
- During closure of the apex, the valve continued to slip resulting in severe regurgitation
- The patient was brought urgently to the OR for open AVR and during cannulation for cardiopulmonary bypass, the valve embolized into the proximal abdominal aorta in the inverted position
- Intraoperative echo confirmed flow around the valve

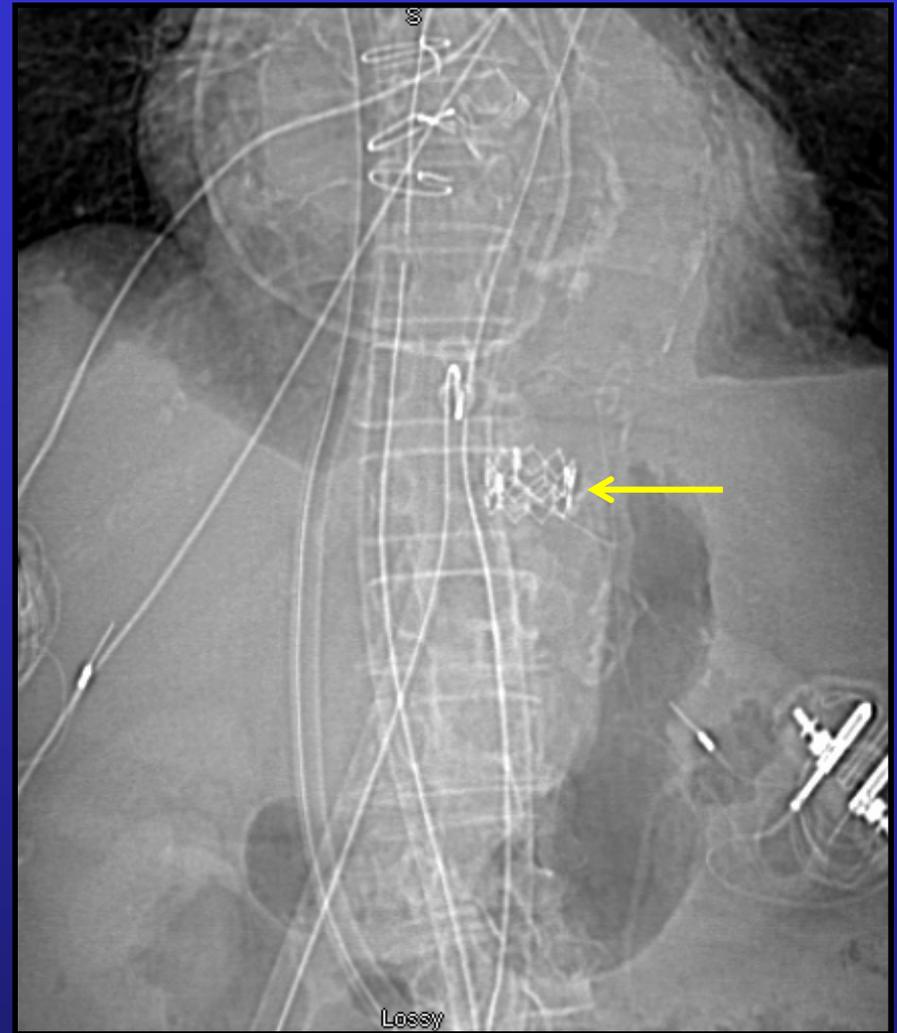
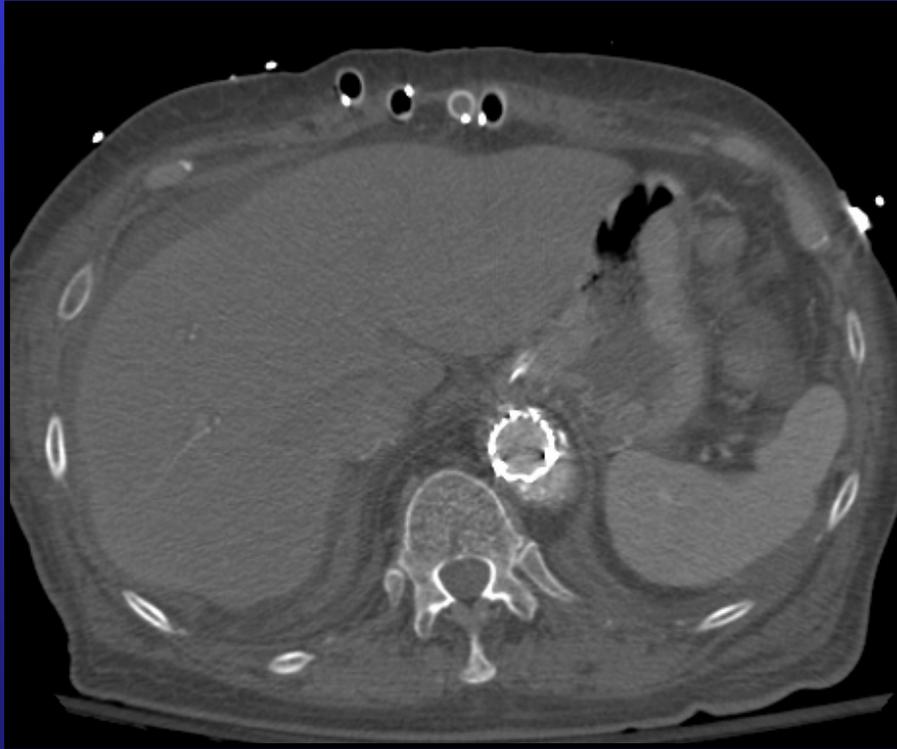
PROCEDURAL DETAILS

No clinical signs of
vascular
compromise
(peripheral or
visceral)

Intraoperative echo
and postoperative
CT confirmed
distal flow

Interventional
Radiology and
vascular surgery
consultation

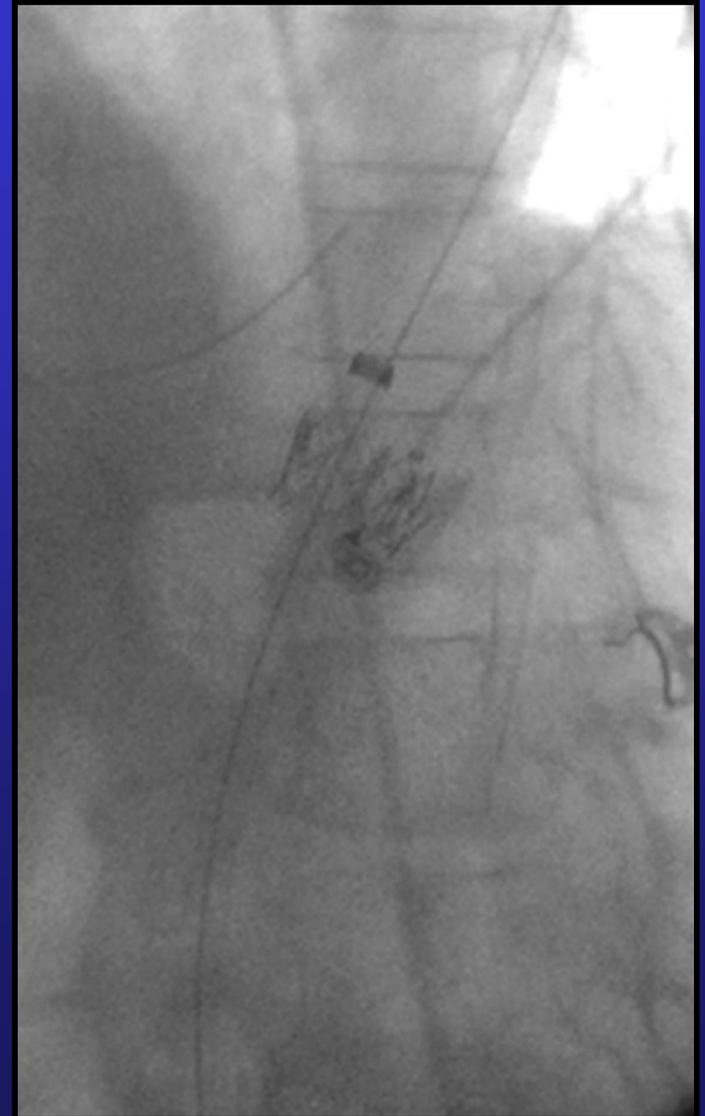




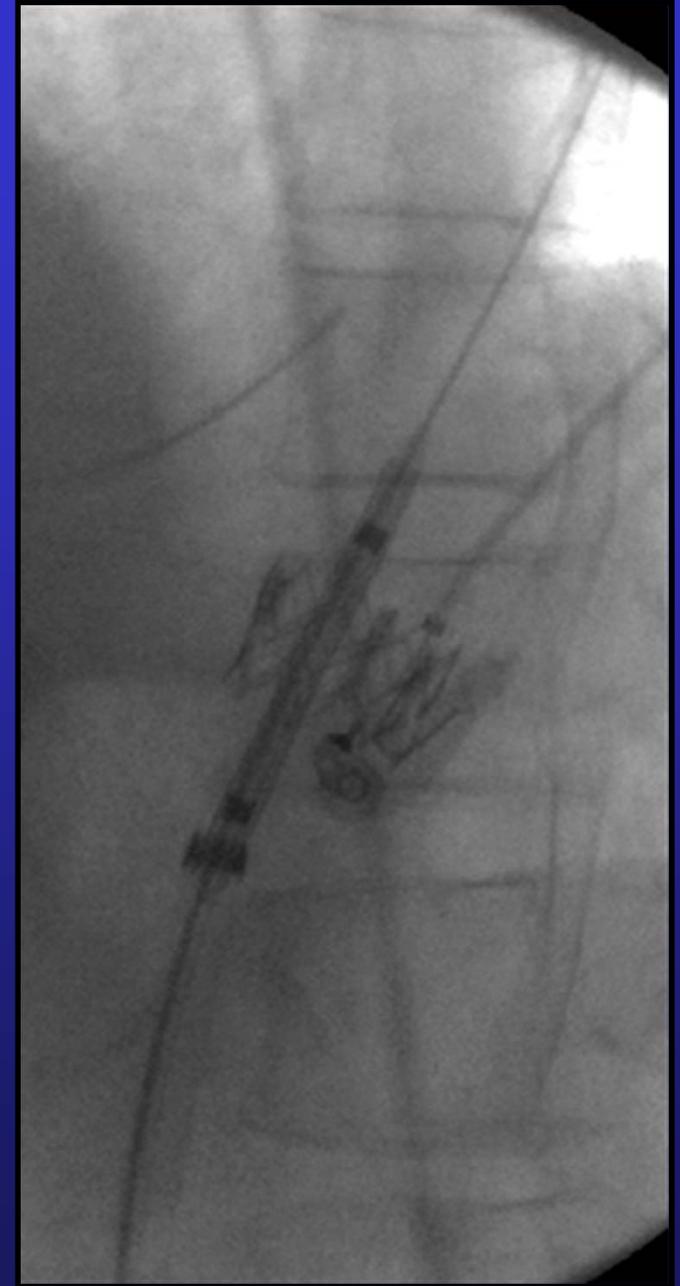
- CT with contrast showing the prosthetic valve in the proximal abdominal aorta with flow around the valve

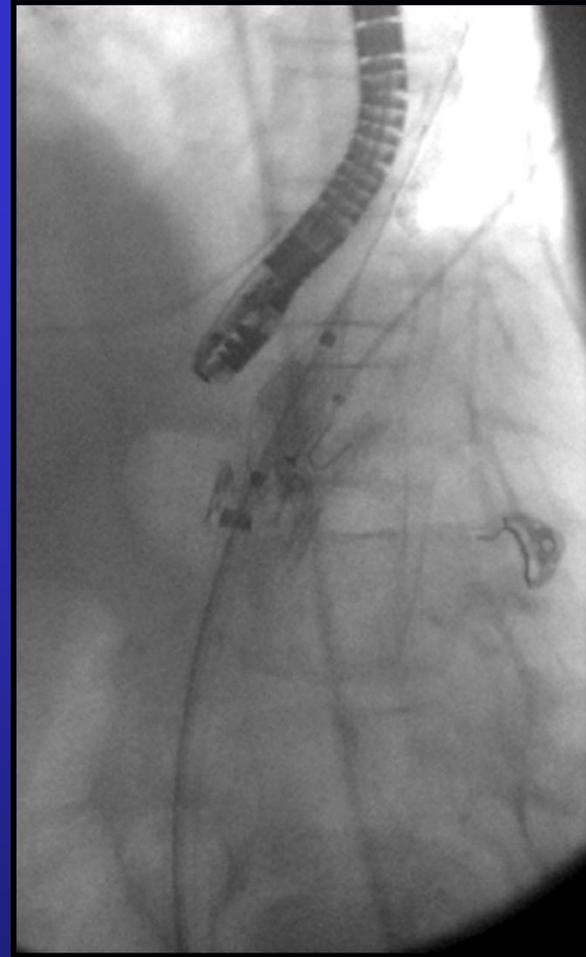
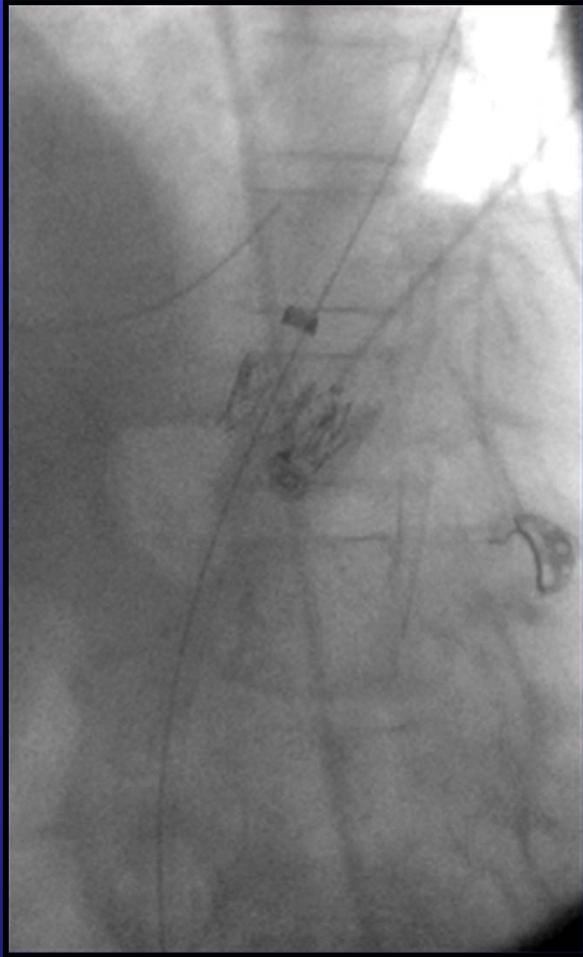
THE ROLE FOR INTERVENTION

- Femoral arteriotomy
- Angled catheter and guidewire advanced through the migrated valve
- 16F vascular sheath positioned with distal tip proximal to the valve

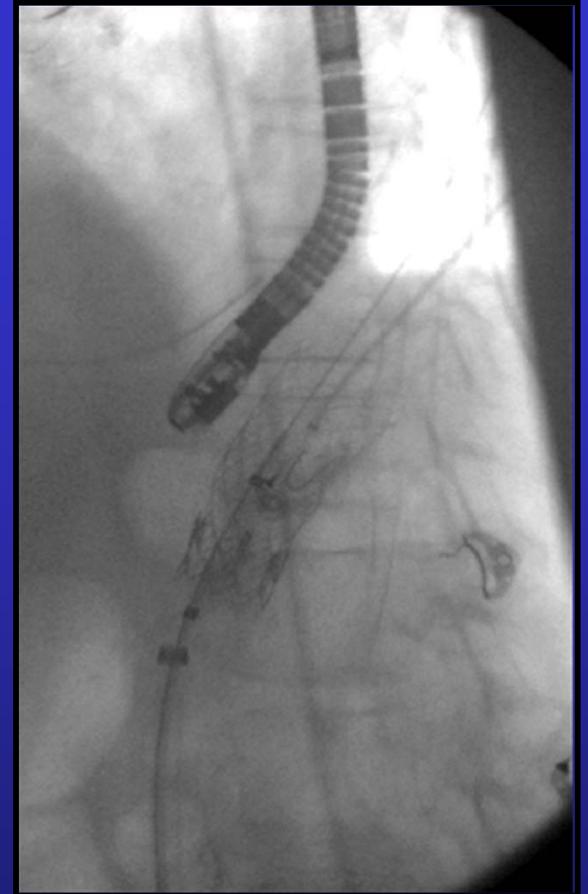
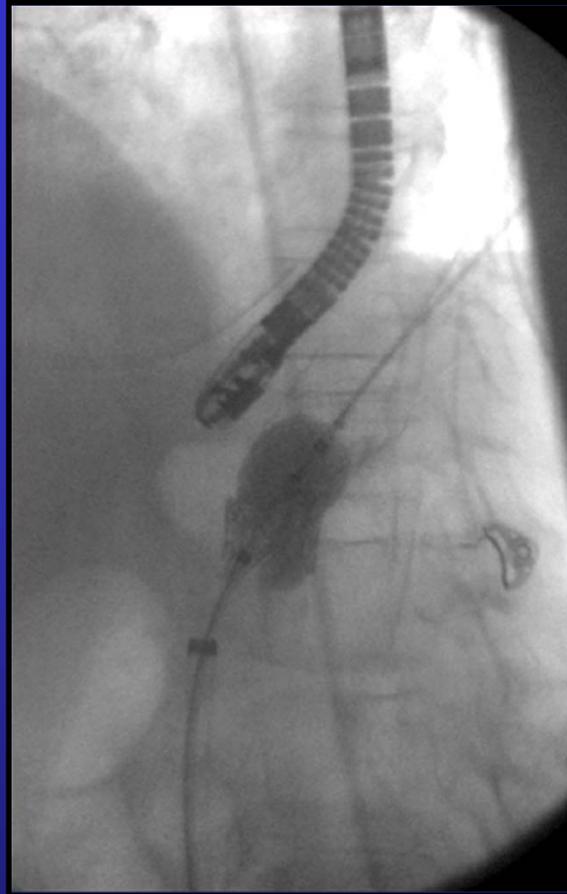
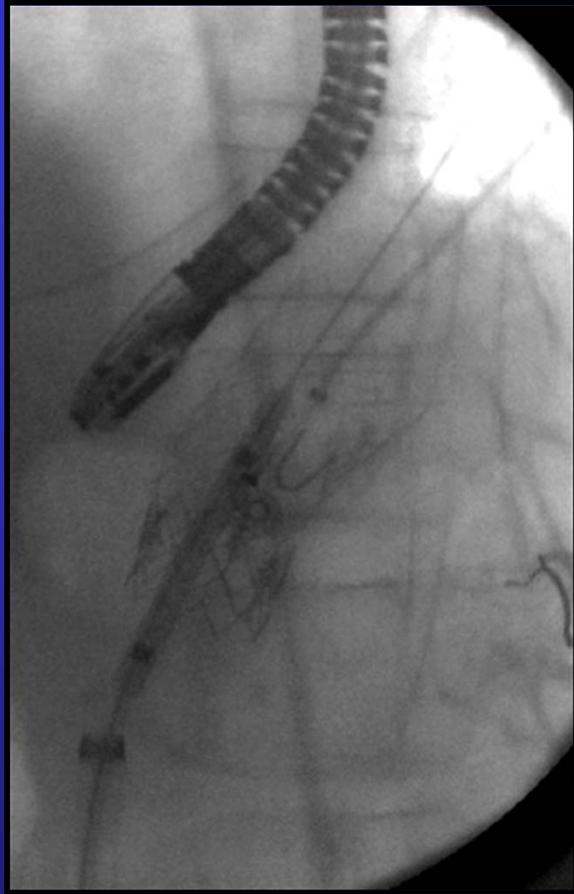


- Palmaz stent mounted on a Reliant balloon positioned in the center of the valve





- During deployment, distal migration of the valve with partial securement of the prosthetic valve with the inferior portion of the stent, note position in relation to the intervertebral disc space

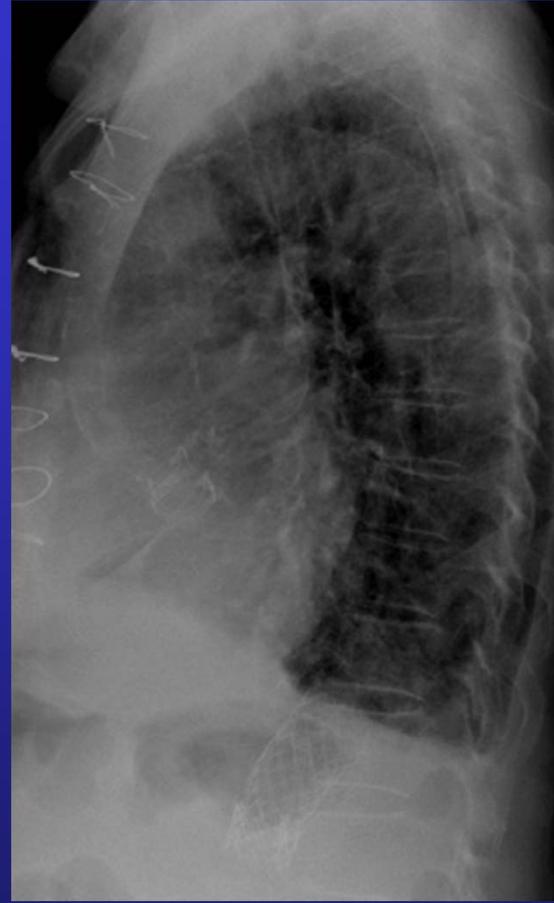


- The Reliant balloon was used to plasty the prosthetic valve to further securing the valve prior to deploying a second stent to firmly secure the valve in place

- A final angiogram confirmed a successful result with no obstruction of flow across the valve and preservation of the origins of the celiac axis and SMA



OUTCOME



- 11 months later, the patient is doing well with no adverse complications

DISCUSSION AND IMPORTANT POINTS

- Although the patient was paced intraoperatively, this was not taken advantage of at the time of plasty and stent deployment
 - Consider slowing heart rate and reducing blood pressure to reduce the chance of valve migration