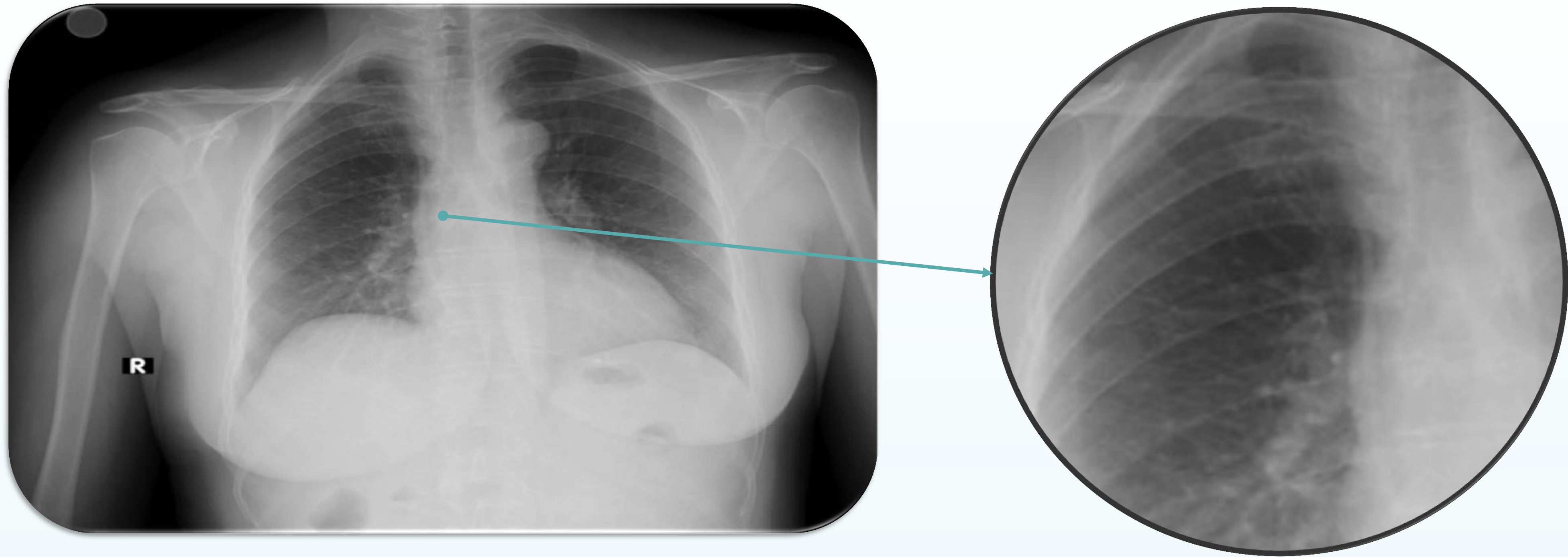
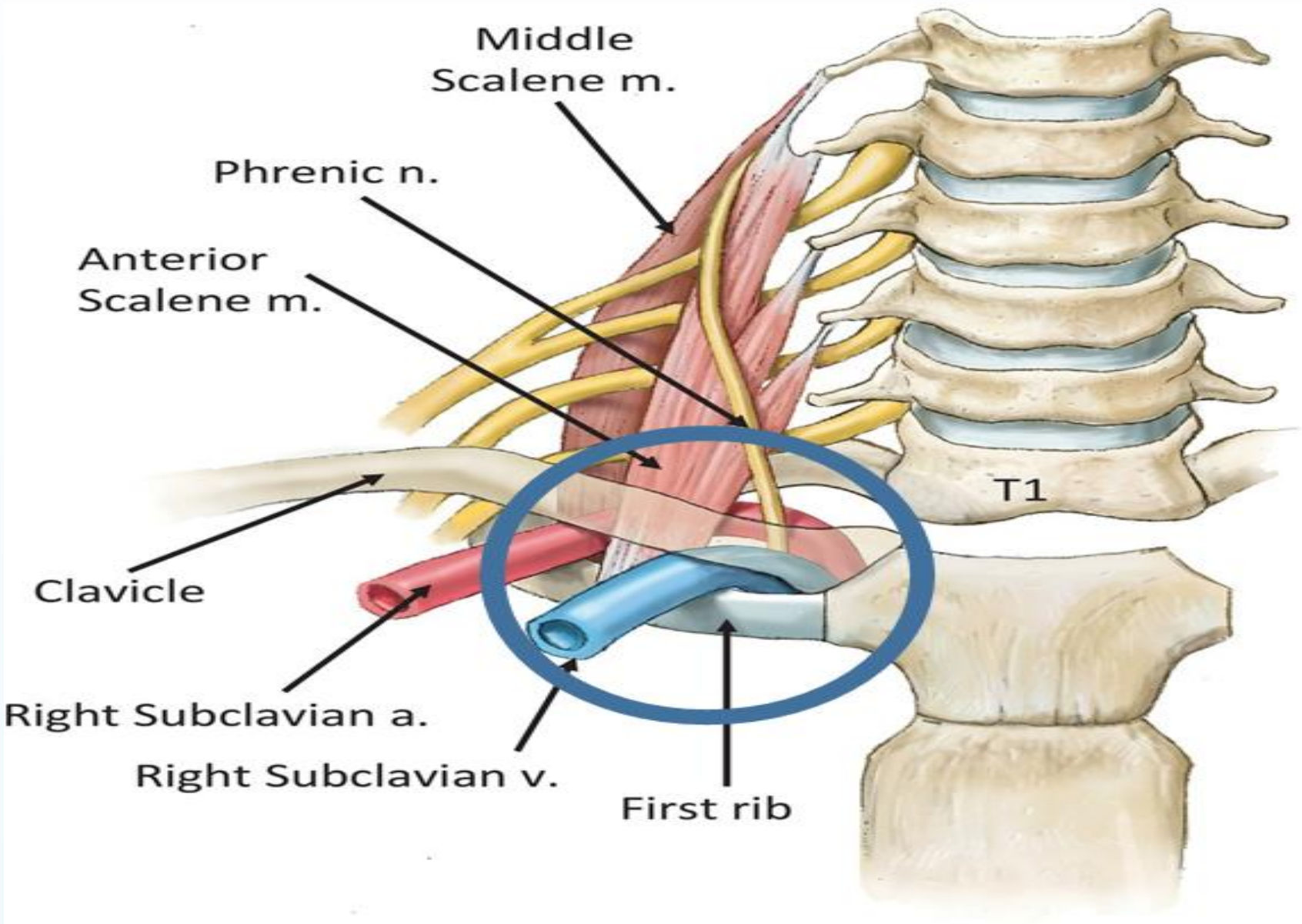


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INTRODUCTION

- PORT-A-CATH SYSTEMS (PCS) ARE TOTALLY IMPLANTABLE VENOUS DEVICES WITH A GOOD SAFETY PROFILE
- SPONTANEOUS CATHETER FRACTURE NOTICED IN A PCS PLACED IN THE SUBCLAVIAN VEINS IS CALLED **PINCH OFF SYNDROME** AND IS CAUSED BY THE PRESSURE APPLIED ON THE CATHETER BETWEEN THE CLAVICLE AND THE FIRST RIB.
- SOME REPORTS OF CATHETER FRACTURE PLACED IN EXTERNAL JUGULAR VEINS, WITH NO CONSENSUS REGARDING MECHANISM OR ETIOLOGY
- FROM 1.1.2016 TO 31/12/2023 **855** PORT-A-CATH HAVE BEEN PLACED IN OUR DEPARTMENT, **853** OF WHICH WERE IN THE INTERNAL JUGULAR VEIN AND THERE WERE **2 CASES OF CATHETER FRACTURE**



CASE REPORTS

PATIENT A

- FEMALE
- 68 YO
- PORT CATHETER 8Fr
- RIGHT INTERNAL JUGULAR VEIN
- 5 MONTHS SINCE PLACEMENT

ΑΣΘΕΝΗΣ Β

- FEMALE
- 58 YO
- PORT CATHETER 8Fr
- RIGHT INTERNAL JUGULAR VEIN
- 7 MONTHS SINCE PLACEMENT

BOTH WERE REFERRED FROM THE CHEMOTHERAPY DAY UNIT FOR PCS CONTROL DUE TO INABILITY OF DRAW SAMPLE COLLECTION FROM THE PCS. AFTER CONFIRMATION OF PCS MALFUNCTION BY DIFFICULTY IN LINE ASPIRATION AND PAIN DURING INJECTION OF THE CATHETER, REMOVAL OF THE CATHETER WAS DECIDED FOR THE FIRST PATIENT. INTRAOPERATIVELY, A COMPLETE CATHETER FRACTURE WAS DETECTED AT THE LEVEL OF CATHETER ENTRY INTO THE JUGULAR VEIN. REGARDING THE SECOND PATIENT, DUE TO INCREASED CLINICAL SUSPICION FROM OUR PREVIOUS EXPERIENCE, A CHEST XR WAS ORDERED, REVEALING A COMPLETE FRACTURE OF THE PORT-A-CATH NEAR THE LEVEL OF CATHETER ENTRANCE INTO THE INTERNAL JUGULAR VEIN.

- ✓ **REMOVAL OF THE PROXIMAL PART AND THE RESERVOIR OF THE CATHETER WERE PERFORMED UNDER LOCAL ANESTHESIA**
- ✓ **REMOVAL OF DISTAL PART TIP WAS PERFORMED BY INTERVENTIONAL RADIOLOGISTS, WITHOUT COMPLICATIONS**

CONCLUSION

CATHETER FRACTURE, OCCURRING IN ONLY 0.2% OF PCS INSERTED, IS A POTENTIALLY FATAL COMPLICATION THAT MUST BE RECOGNISED EARLY. NUMEROUS POSSIBLE MECHANISMS HAVE BEEN PROPOSED, INCLUDING *PINCH-OFF SYNDROME*, EXTERNAL CONTACT FORCE, INCREASED INTRA-CATHETER PRESSURE DUE TO FLUSHING OF THE CATHETER WITH SMALL SYRINGE AND MANUFACTURING DEFECTS.

