

2021 | euro  
**PCR**

**An X-ray finding with percutaneous  
solution**

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✓ I do not have any potential conflict of interest to report.

# An X-ray finding with percutaneous solution

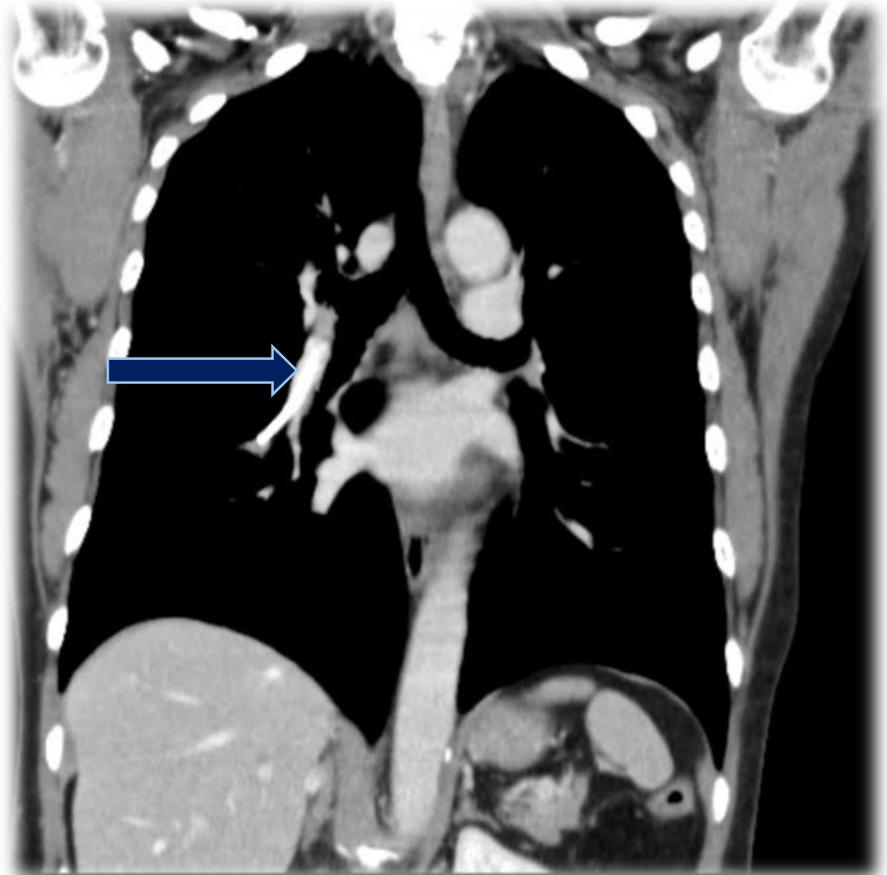
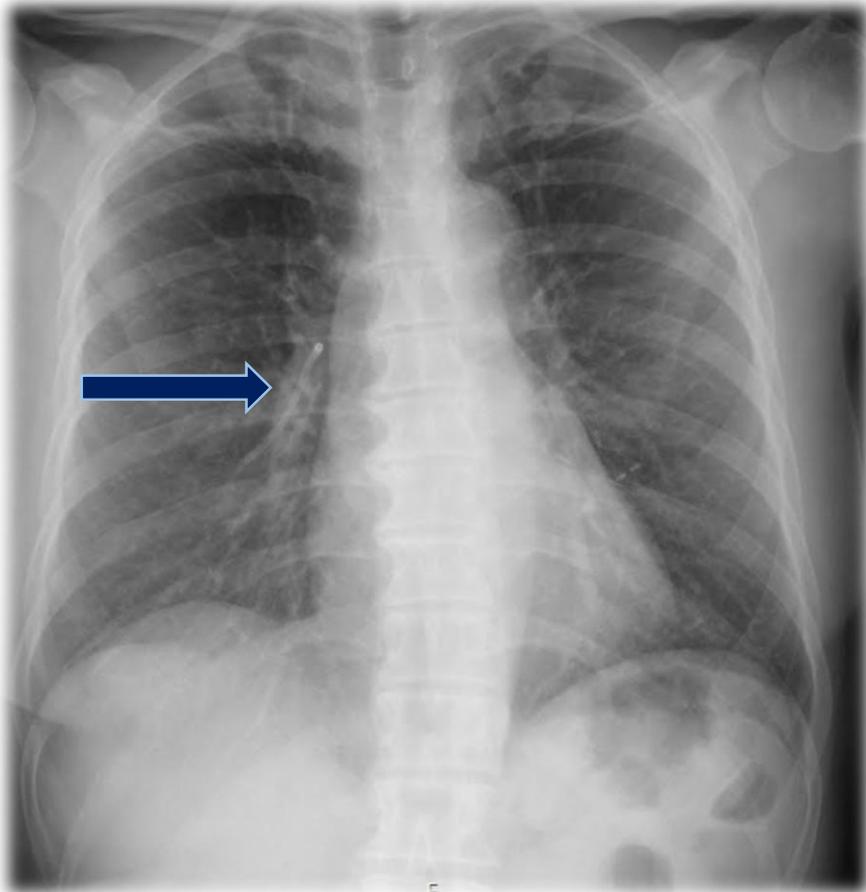
59 years-old-woman

## PAST MEDICAL HISTORY

- ✓ No cardiovascular risk factor
  - ✓ Past history of drug addiction (heroin)
  - ✓ Lumbar herniated disc
  - ✓ Breast cancer, ductal carcinoma in situ-T1G1M0  
(chemotherapy, radiotherapy and hormone therapy)
- 
- ✓ Without regular medication

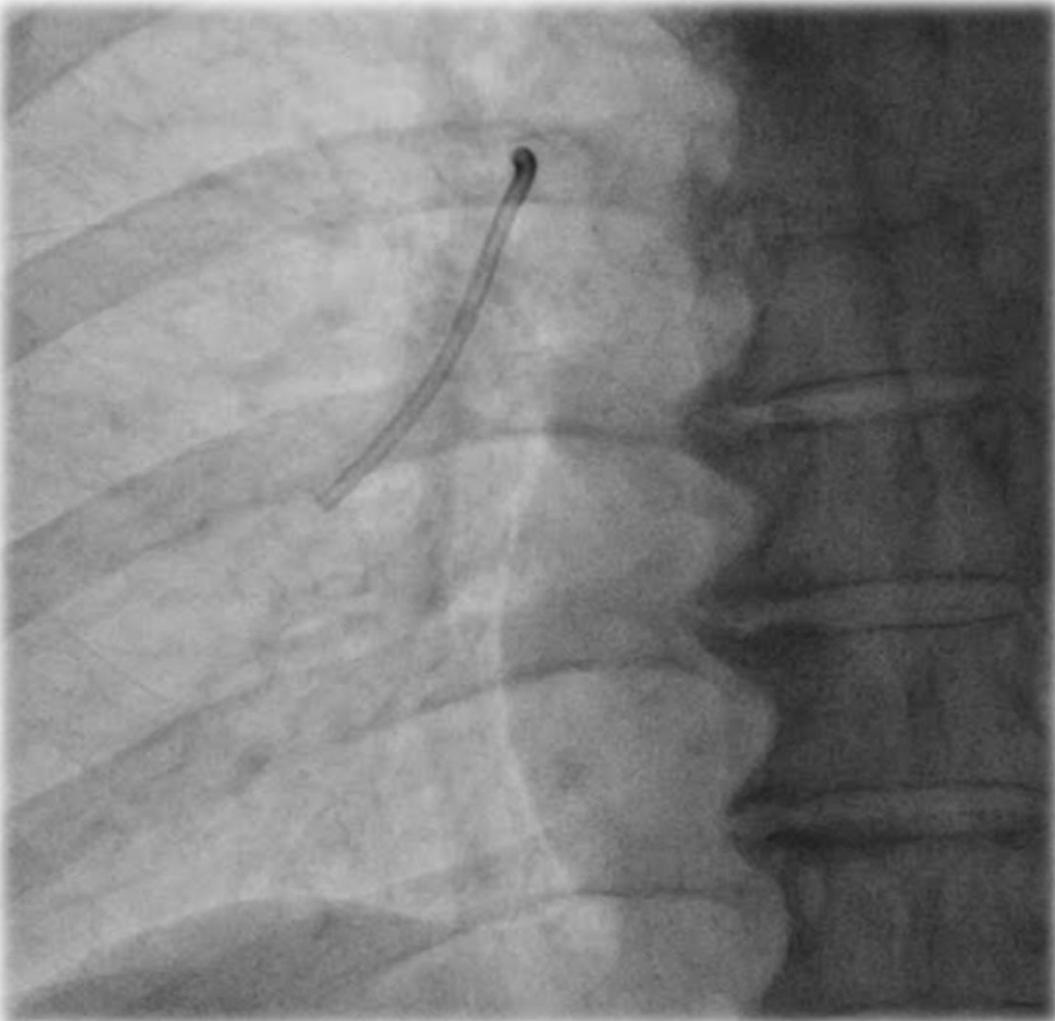
## An X-ray finding with percutaneous solution

During follow-up in Oncology consultation the patient developed cough and underwent a chest X-ray and thoracic computed tomography that revealed a **fracture and embolization of intravascular portion of central venous catheter to the right pulmonary artery.**



## An X-ray finding with percutaneous solution

The patient was referred to cardiac catheterization lab:



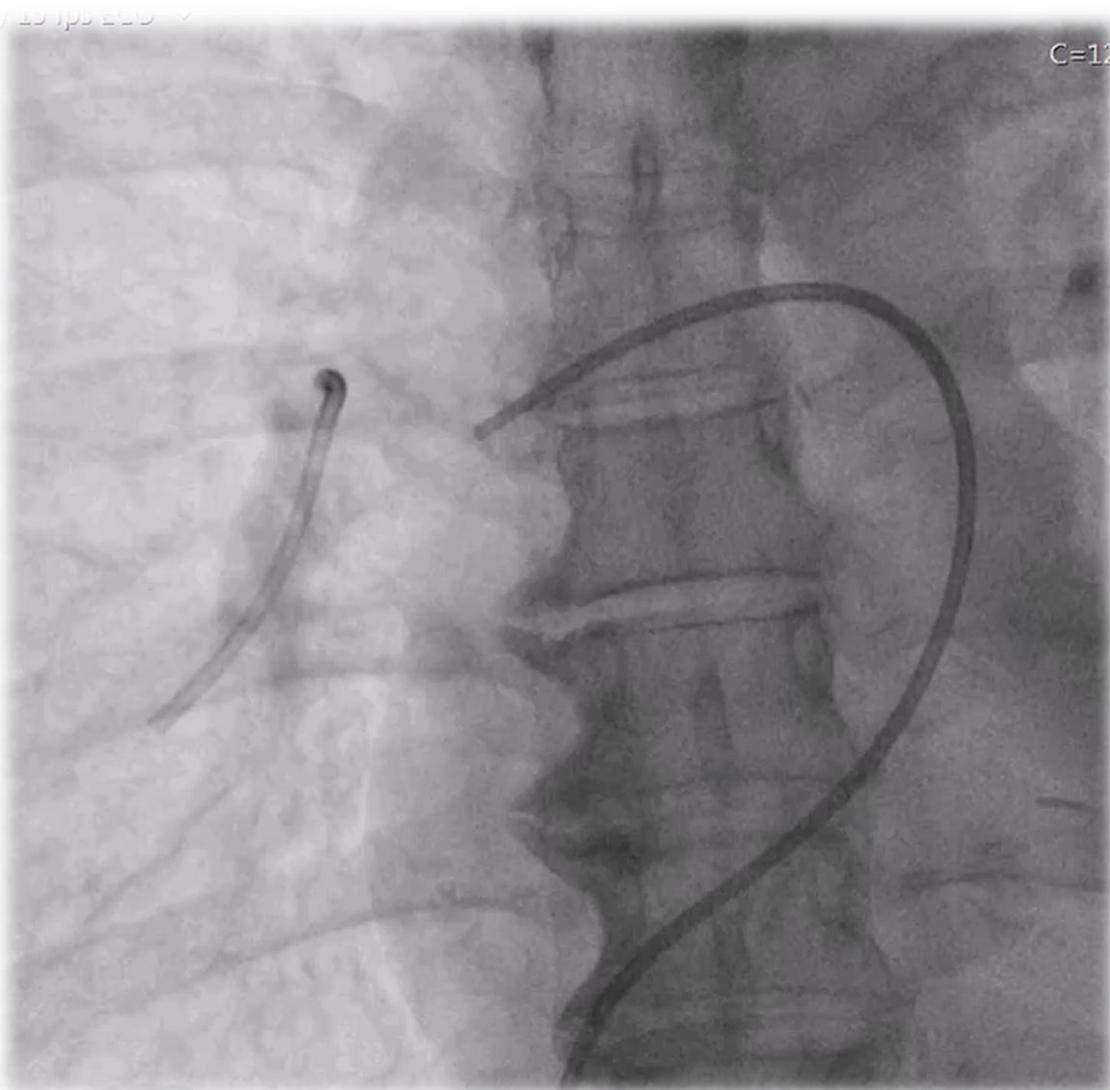
**Right femoral vein access and a 7 Fr long sheath was inserted.**



**A 7Fr Swan-Ganz catheter was advanced over a guidewire to the right pulmonary artery.**

# An X-ray finding with percutaneous solution

The patient was referred to cardiac catheterization lab:

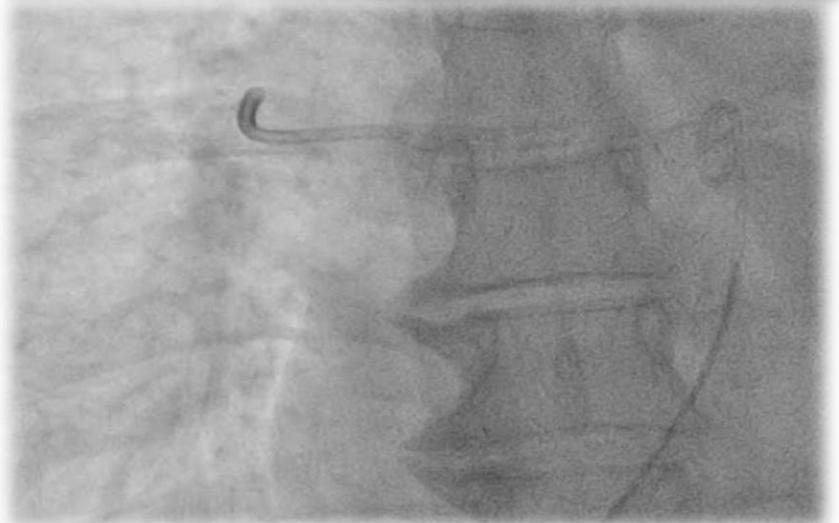
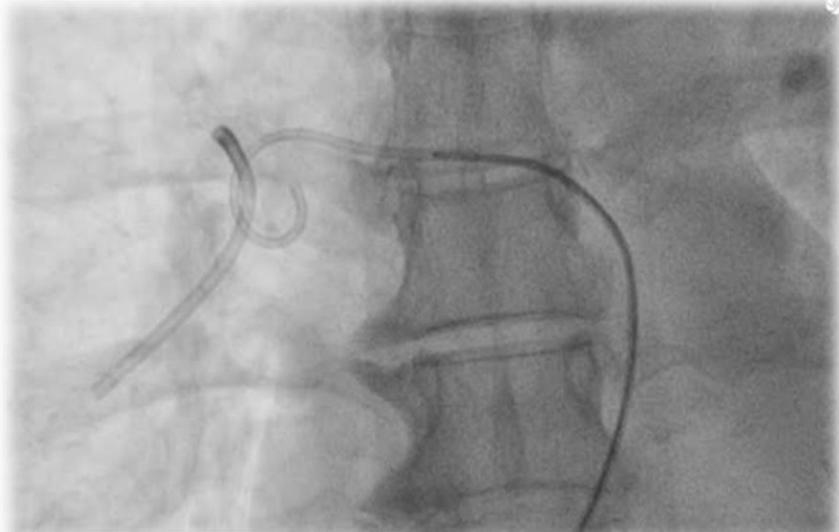


Through fluoroscopy a selective injection of contrast at right pulmonary artery revealed that the intravascular portion of central venous catheter is **placed between the two branches of right pulmonary artery.**

**(Inaccessible edges)**

## An X-ray finding with percutaneous solution

The patient was referred to cardiac catheterization lab:



Then through the guidewire the Swan-Ganz catheter was replaced by **5Fr Pigtail catheter**.



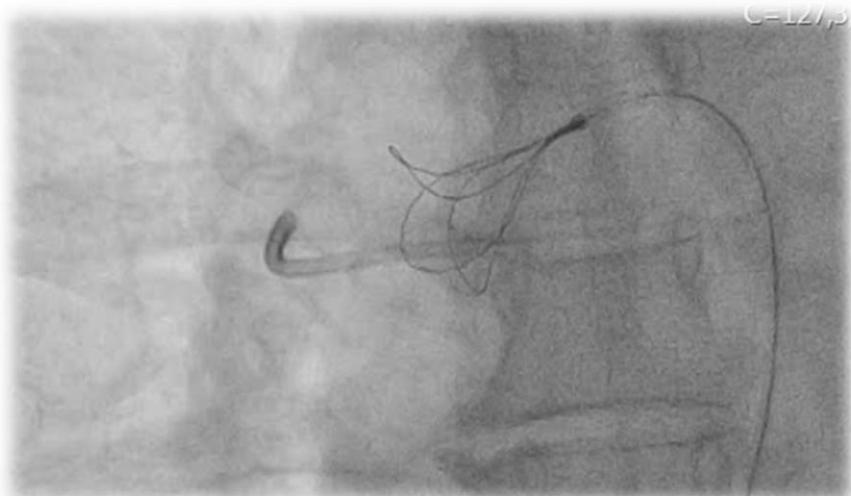
One of the edges of the central venous catheter fragment was successfully grabbed with «twist maneuver».



One accessible edge in the main pulmonary artery.

## An X-ray finding with percutaneous solution

The patient was referred to cardiac catheterization lab:



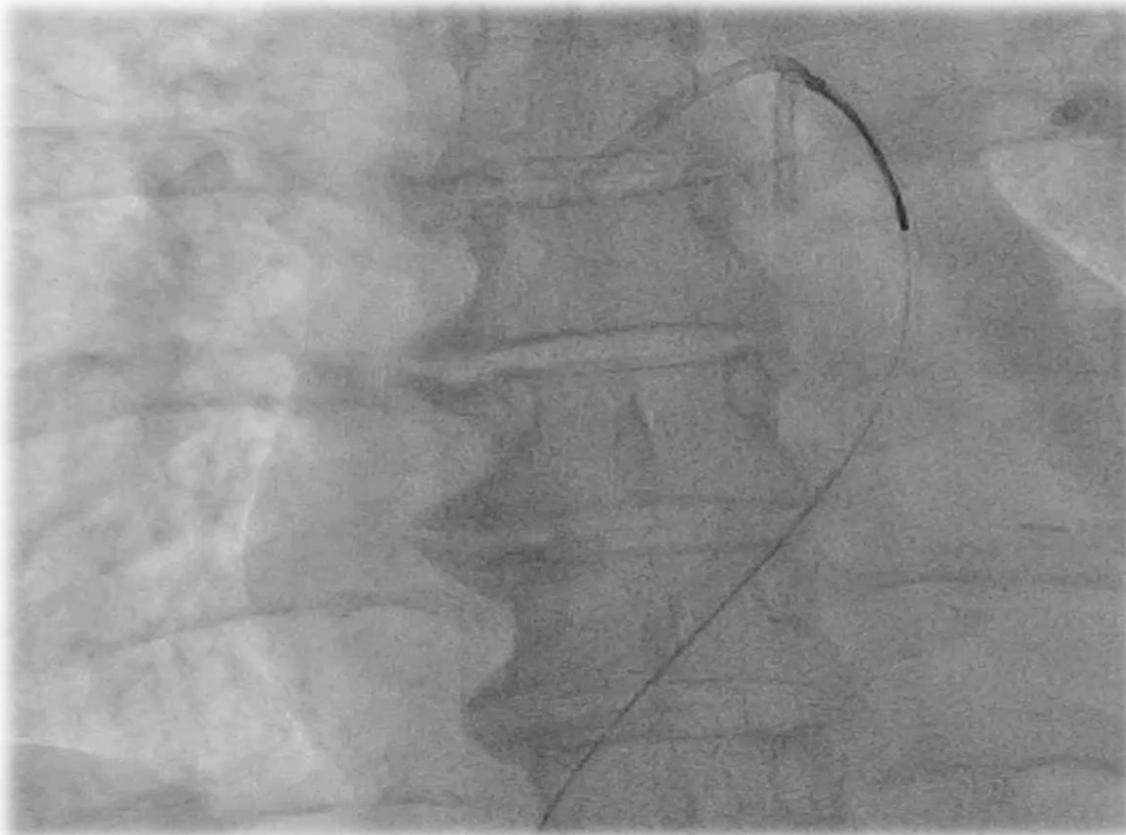
The **5Fr Pigtail catheter** was withdrawn and replaced by **6Fr EN-Snare catheter**.



With another «twist maneuver» the catheter fragment was successfully grabbed and collected.

## An X-ray finding with percutaneous solution

The **6Fr EN-Snare catheter** with secured catheter fragment were pulled back to the guiding catheter and then to the femoral sheath.



Finally femoral sheath, guiding catheter, EN-Snare and catheter fragment were withdrawn as unit, with careful hemostasis.

- ✓ Nowadays, endovascular devices are frequently use in clinical practice.
- ✓ The fragmentation and subsequent embolization of endovascular devices is an uncommon (~0.3-9%) complication.
- ✓ Catheter fragmentation is a potentially dangerous complication and could be associated with severe clinical presentation (arrhythmias, thromboembolism, perforation).
- ✓ Percutaneous retrieval is regarded as a gold standard technique, with high recovery rate and minimum complication rate.