

Angiographic sheath fracture and its embolization to the right atrium during coronary angiography and its successful percutaneous retrieval - an unusual complication

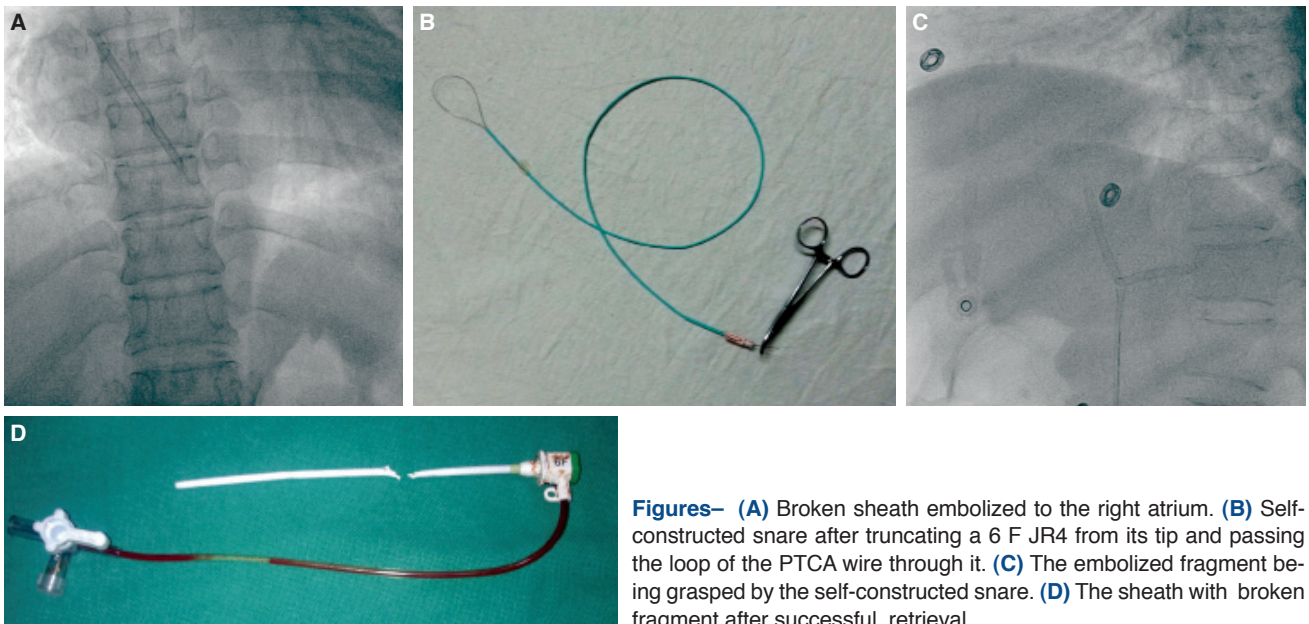
Koroner anjiyografi sırasında anjiyografi kılıf rüptürü ve sağ atriyuma embolizasyonu ardından perkütan yolla başarılı bir şekilde çıkartılması - olağandışı bir komplikasyon

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A 45-year-old female was admitted for coronary angiography for coronary artery disease. Her vitals were stable with normal biochemistry. Echocardiogram was normal. Coronary angiogram was performed through the femoral route after obtaining proper consent. After infiltrating the skin with 2% xylocaine as local anesthesia, the femoral artery was punctured using a modified Seldinger technique. As she was obese, slight difficulty was encountered during the puncture. The femoral vein was punctured inadvertently, so we had to slightly withdraw the needle, and then the artery was punctured. A 6 F 11 cm INPUT® PS introducer sheath (Medtronic, USA) was inserted into the femoral artery but it was introduced into the femoral vein via the femoral artery according to the original puncture tract. Another puncture was done to the femoral artery and another 6 F 11 cm INPUT® PS introducer sheath (Medtronic, USA) was inserted into the femoral artery. Both were new sheaths. According to routine procedure, the patient received 2500 U of heparin intra-

arterially. The angiogram was completed. One hour later, while removing the sheaths, the arterial sheath was extracted, but only the proximal half of the venous sheath was retrieved. Fluoroscopy was performed to check for the distal fragment, which was found in the right atrium, where it had embolized (Fig. A). The patient was asymptomatic. Retrieval was planned, but we had no snare available at that time. The femoral vein was punctured using the same technique, and a 7 F 11 cm INPUT® PS introducer sheath (Medtronic, USA) was inserted. A 0.014-inch 180 cm percutaneous transluminal coronary angioplasty wire was taken and its loop was passed through standard 6 F JR4 Proflo® diagnostic catheters (Medtronic, USA), the lengths of which were shortened by cutting 20 cm from the tip to accommodate the loop, as the length of both the JR4 and the loop was 90 cm, and thus a snare was constructed by catching both free ends with arterial forceps (Fig. B). This snare was passed into the venous sheath, and under fluoroscopic guidance, the embolized fragment was successfully retrieved after multiple attempts (Figs. C, D). The whole process was completed in 25 minutes. The patient was discharged in stable condition the following day.



Figures– (A) Broken sheath embolized to the right atrium. (B) Self-constructed snare after truncating a 6 F JR4 from its tip and passing the loop of the PTCA wire through it. (C) The embolized fragment being grasped by the self-constructed snare. (D) The sheath with broken fragment after successful retrieval.