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Removal of a temporary pacemaker lead fragment with the use of biopsy forceps

Spyridon Koulouris*, Socratis Pastromas, and Antonis S. Manolis

1st Cardiology Department, Evangelismos Hospital, Ipsilantou 45–47, Athens 10676, Attica, Greece

* Corresponding author: Kekropos 64, 151 25 Marousi, Athens, Greece. Tel: +30 210 6148740; fax: +30 210 7218025. *E-mail address*: spyridon.koulouris@gmail.com

The percutaneous retrieval of intravascular foreign bodies is a rather frequently applied technique, given the growing number of vascular procedures in daily clinical practice. Various types of devices have been used, such as gooseneck snares, Dormia baskets, tip deflectable wires, or biopsy forceps.

A 75-year-old male was admitted to the Coronary Care Unit due to frequent sinus arrest episodes associated with syncope. A temporary pacemaker electrode was inserted through the left subclavian vein. The next day the pacemaker lead had to be repositioned because of loss of capture. However, it was proved extremely difficult to manipulate the lead that eventually broke during a pull-back attempt. The distal part of the electrode remained intravascularly. A chest X-ray revealed a loop that had been formed by the lead fragment inside the left innominate vein near its conjunction with the superior vena cava. This finding was confirmed by subsequent digital angiography *(Figure 1A)*. The patient was transferred to the catheterization laboratory, and an initial attempt to capture the lead with the use of a triple-loop gooseneck snare was unsuccessful. The intravascular foreign body was finally captured and removed with a 100 cm long biopsy forceps inserted via the right femoral vein *(Figure 1B)*. The patient did well, and a permanent pacemaker was implanted 2 days later through the right cephalic vein. He remained symptom-free at 12 months of follow-up.

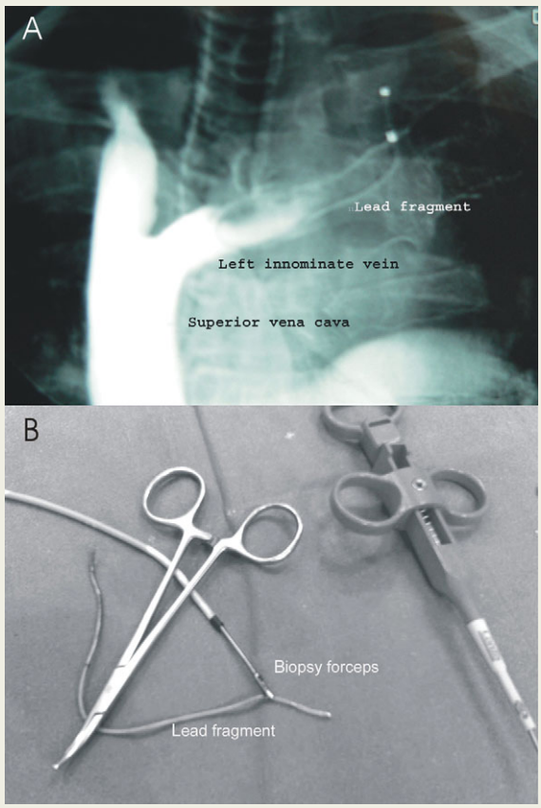

Figure 1 The lead fragment located inside the left innominate vein as shown by digital angiography (*A*) and after it has been extracted with biopsy forceps (*B*).