EP3_48

Percutaneous Retrieval, Repositioning, Unknotting, and Stripping of Intracardiac Catheters and Foreign Bodies

Jaime Tisnado, William Fox, Daniel Komorowski
Radiology-Interventional, MCV Hospitals/VCU Medical Center, USA

Object or Purpose of Study:

Intracardiac embolization of catheter fragments and iatrogenic and other foreign bodies (stents, bullets, IVC filters); intracardiac knot formation in catheters; malpositioning of intracardiac catheters; and thrombi and fibrin deposition in intracardiac catheters are serious complications of percutaneous catheterization techniques, or can result from penetrating trauma and are associated with high morbidity and mortality.

Materials, Methods and Procedures:

We performed percutaneous retrieval of intracardiac catheters and iatrogenic foreign bodies (n=80), unknotting of catheter knots (n=4), repositioning of malpositioned catheters (n=46), and stripping of catheters (n=20), in 150 adults and children. Interventional radiologic equipment included: Dotter retrieval baskets, Amplatz and Curry retrieval loops, and other types of loops, deflecting wires, retrieval forceps, and different types of angiographic catheters, alone or in combination.

Results:

Retrieval of catheter fragments and iatrogenic foreign bodies was successful in 76 patients. There were four failures: an IVC filter, a catheter fragment, a stent both lodged in the right atrium, and a bullet lodged in the right ventricle. Unknotting of catheters knots, repositioning of misplaced catheters, and stripping of catheters was successful in all patients. There were no major complications related to the IR procedures.

Significance of the Conclusions:

These interventional radiologic procedures are quick, safe, and effective to manage potentially serious and lethal complications of percutaneous catheterization techniques and trauma. Dialysis and central catheters and ports can be made functional for much longer periods. In many instances major operations to manage these problems, which may include open-heart surgery, are avoided. Experienced IR personnel are needed 24/7.