

Clinical News Corner

Focussing on current and new clinical procedures An Andramed Publication

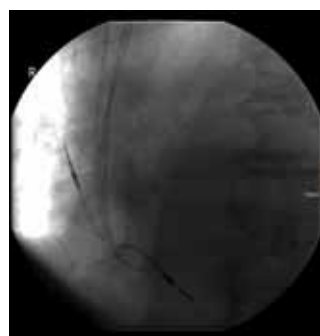
December, 2006

Successful retrieval of a disintegrated guide wire within the right atrium with the new AndraSnare device

References: Dr. Marc Kalinowski, MD; PhD Vice Chairmen Dep. of Diagnostic Radiology
Philipps University Hospital Marburg Germany

We report about a 75 year old male patient who was transferred to our angio-theatre for implantation of a tunnelled cuffed dialysis catheter.

Due to a thrombosed right internal jugular vein we had to use the sonographically patent left jugular vein. After ultrasound guided puncture of the jugular vein we inserted a 0.018-inch guide wire through the needle. Under fluoroscopy, guide wire placement into the inferior vena cava was difficult due to a sharp curve from the brachiocephalic trunc down into the superior vena cava. Additionally, the placement procedure was complicated by pacemaker leads inserted from the right subclavian vein. We decided to exchange the thin guidewire to a long 0.035-inch stiff type Amplatz guide wire to reach more pushability for placement of the peel away sheath and the tunnelled catheter. After preparing the subcutaneous tunnel we intended to place the tunnelled catheter. Unfortunately, the inserted guide wire could not be exchanged. Under fluoroscopy it was obvious that the guide wire was slipped back in the right atrium and the external circular coating was separated from the guide wire core and was ensnared either in a papillary muscle or the tricuspidal valve.



(Fig. 1)



(Fig. 2)



(Fig. 3)

Even using enormous pull back force it was impossible to detach the guide wire. One possible explanation for disintegration was the guide wire passage along the pacemaker cables.

To retrieve the fragmented guide wire, we decided first, to push forward a guiding catheter over the distal guide wire tip. This procedure was unsuccessful.

Then we decided to cath the guiding catheter with a **AndraSnare AS 25** (25mm) catheter because of its excellent 3-dimensional captureability and small puncture site. Using a right femoral access and with only a short time of X-ray this manoeuvre was unsuccessful. Unfortunately, the guide wire could not be retrieved by this technique (Figure 2).

We left the guiding catheter in the right atrium and decided to try and detach the guidewire from a additional femoral access site. We punctured the left common femoral vein. From the right femoral vein we inserted a Sidewinder catheter into the right atrium. We attached the tip of the sidewinder catheter over the guiding catheter (Figure 3).

Then we inserted a hydrophilic guidewire through the sidewinder catheter back into the inferior vena cava. From the left femoral vein access we used the **AndraSnare AS 25** (25mm) again, caught the guide wire and pulled the guide wire out of the left sheath. After that procedure we pulled simultaneous at both ends of the hydrophilic guide wire at the femoral access sides and at the guiding catheter at the jugular access side. After some attempts the fragmented guide wire could be released and removed in total. The patient had an uneventful follow up confirmed by heart ultrasound the next day. Two days later we implanted the tunnelled dialysis catheter without complications over the left jugular vein.

