

## Case Report

# Antecubital Vein Approach for Right Heart Catheterization

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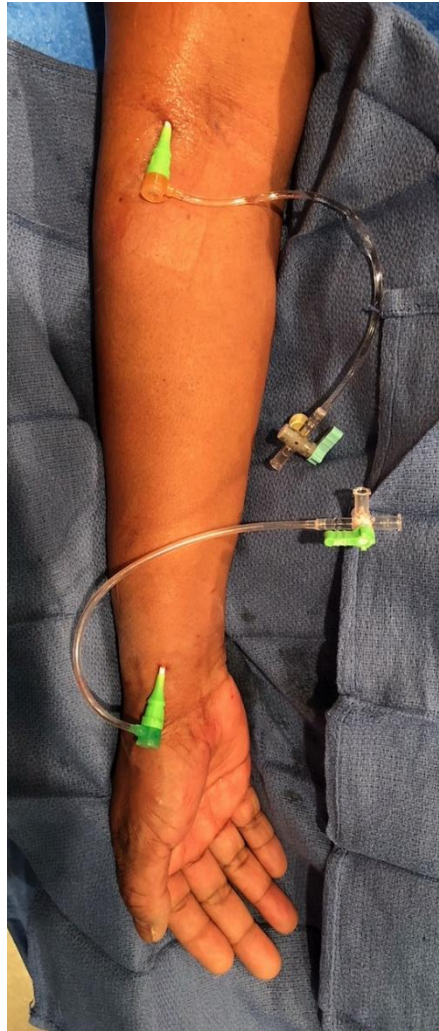
## Case Report

Vascular access for RHC procedures is usually performed using proximal venous access sites such as the common femoral vein or the internal jugular vein. While these routes are at relatively low risk, significant complications can occur such as large hematomas, pseudoaneurysms, and arterio-venous fistula formation, especially in anticoagulated patients. Using the antecubital vein approach for RHC is an attractive alternative to decrease vascular complication and perform PH assessment during effort.

A 20-gauge peripheral venous catheter is inserted in the antecubital vein. It is exchanged for a slender 7F in 6F transradial introducer (Terumo, Japan). This introducer is inserted after a local anaesthesia over a hydrophilic 0.035" guidewire around the entry point. Subsequently over a 0.025" hydrophilic J-tipped wire (Terumo) advanced under fluoroscopic guidance, a 7-F Swan-

Ganz catheter is introduced up to the pulmonary artery (Figure 1). Closure of the venous access is performed by a 10 minutes duration manual compression, and then it is done with a compressive dress.

RHC was first introduced in humans in 1929 by Werner Forssmann, who performed self-catheterization through antecubital venous access [1]. Then, the preferred access site has shifted from the antecubital veins to the proximal veins. However, with the increasing use of transradial arterial access for coronary angiography and left catheterization, antecubital venous access for RHC has reappeared in specialized centers in PH assessment [2-5]. When compared with femoral access, antecubital access was associated with shorter procedure duration and fluoroscopy time and a lower radiation dose [2-5]. It also appeared safer, with fewer access site hematomas [2-5].



**Figure 1:** A Terumo Slender 7F in 6F introducer (the orange and green introducer) was inserted in the right antecubital vein. A Terumo 6F (the green introducer) was inserted in the right radial artery.

### Conclusion

Using the antecubital vein allows a comprehensive hemodynamic evaluation together with a reduced time of procedure and an excellent safety

### References

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