Previously Failed CRT Cases Implanted Successfully Using a Guide Support Based Telescoping CRT Delivery System

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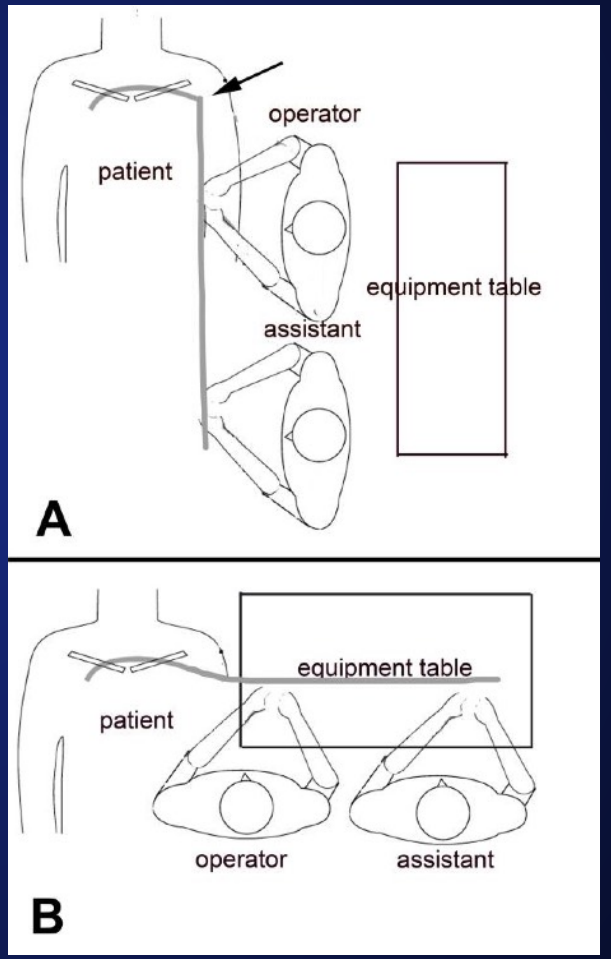
Conflict of Interest:

- The two cases presented here had failed implant attempts by experienced implanters at other centers.
- A variety of device company delivery systems were used in both failed.
- The author developed and has intellectual property rights for the telescoping guide based delivery system used for the successful implants described here

Ergonomics for LV Lead Implantation

- When implanting LV leads turning the table to the position illustrated in Panel B improves the ergonomics
- The assistant is in a better position to help
- The catheters are not kinked

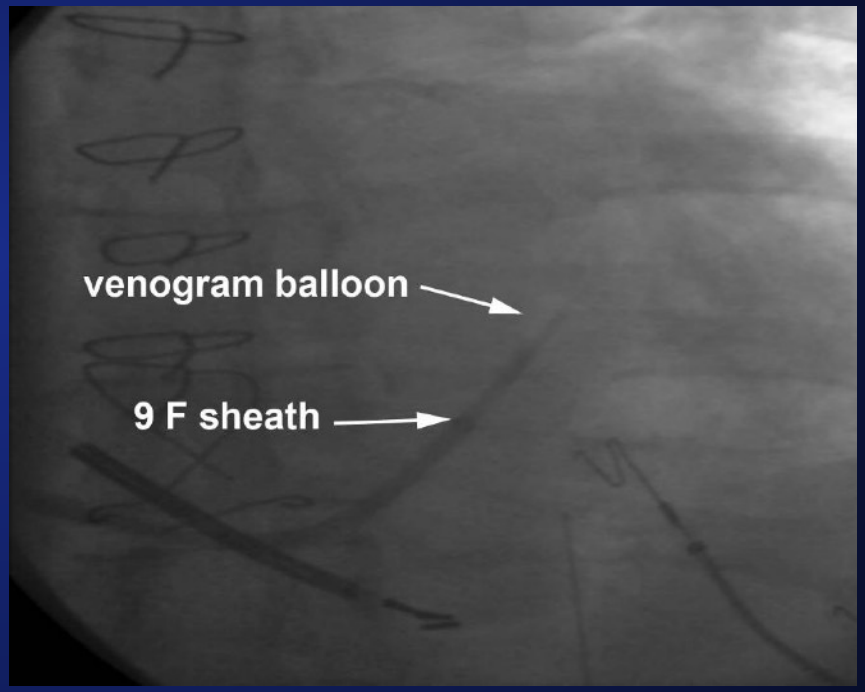


Case 1

- CRT-indicated 75 year old male was referred to our center following a failed 3 hour attempt using various device company delivery systems.
- The attempt at the other center failed because the LV lead would not track over the wire into the target vein despite the use of multiple types of wires.

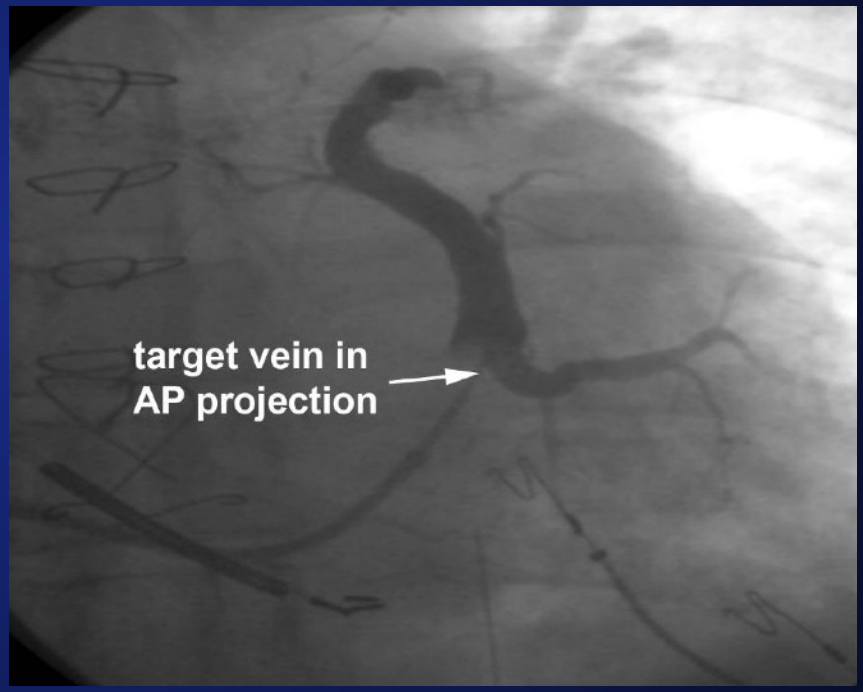
Case 1

- At our center initial coronary sinus (CS) access was obtained with the 9F Pressure Products SafeSheathCSG® Braided Core Worley-STD® anatomically-shaped, peel-away sheath (sheath).



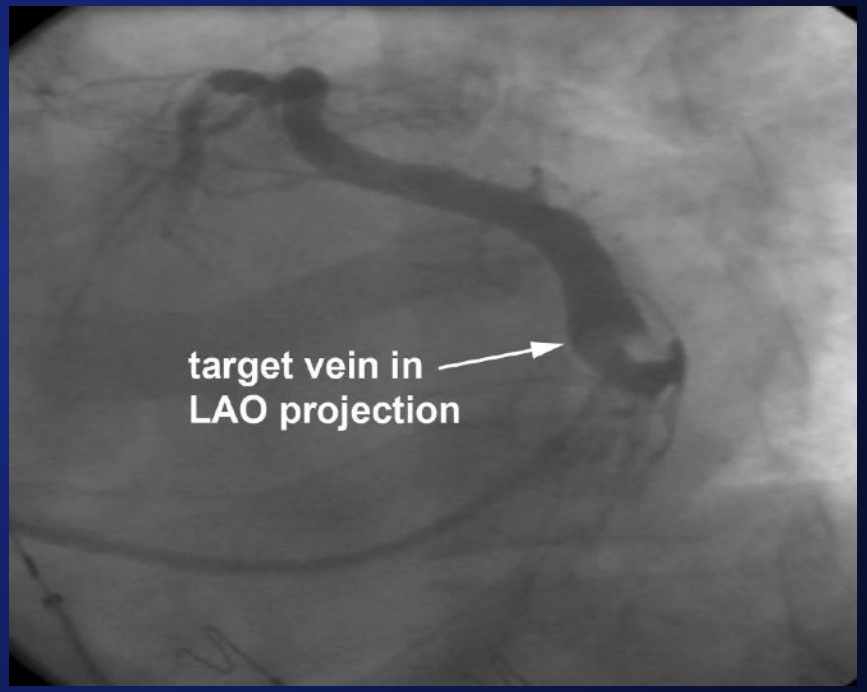
Case 1

- Occlusive CS venography was performed
- The target vein attempted at the other institution was identified in the AP projection.



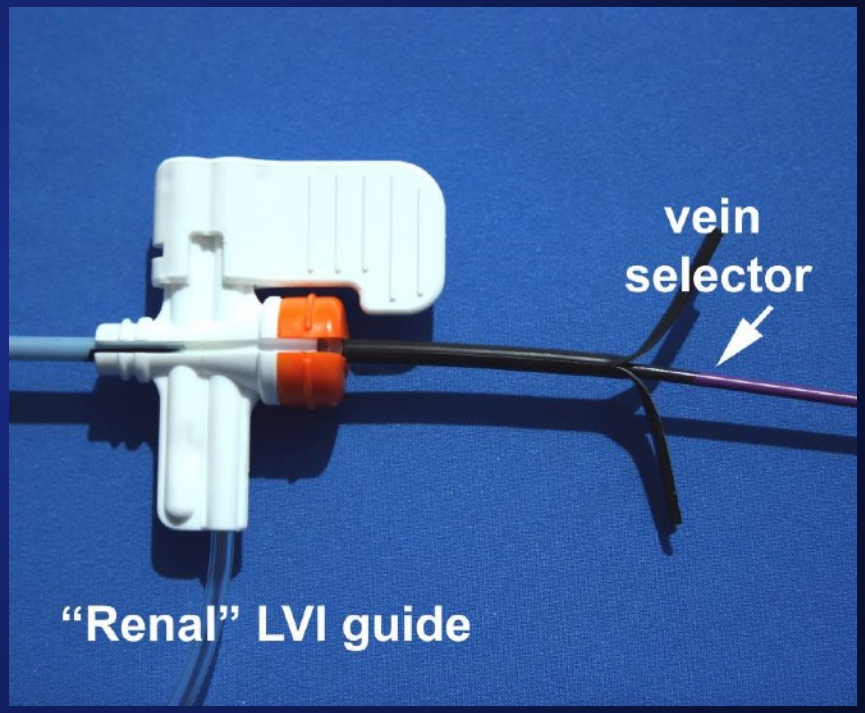
Case 1

- The target vein attempted at the other institution was identified in the LAO projection.



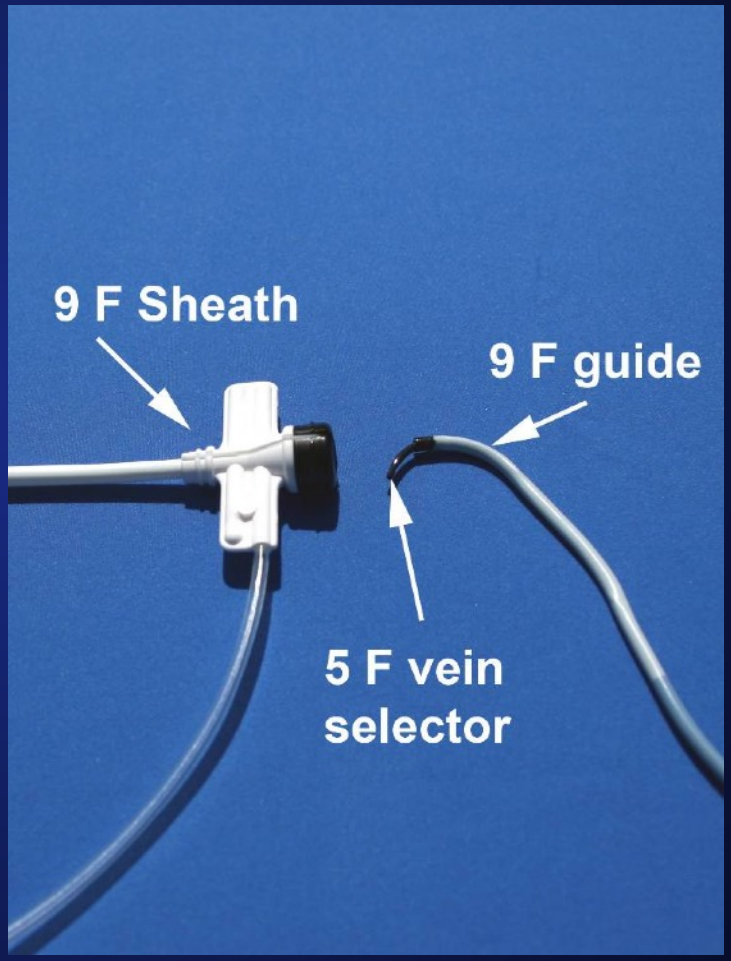
Case 1

- The 5 F vein selector was inserted into the a 9 F SafeSheath® Worley Telescopic Braided Series Renal Lateral Vein Introducer® from Pressure Products (9 F “Renal” LVI guide).



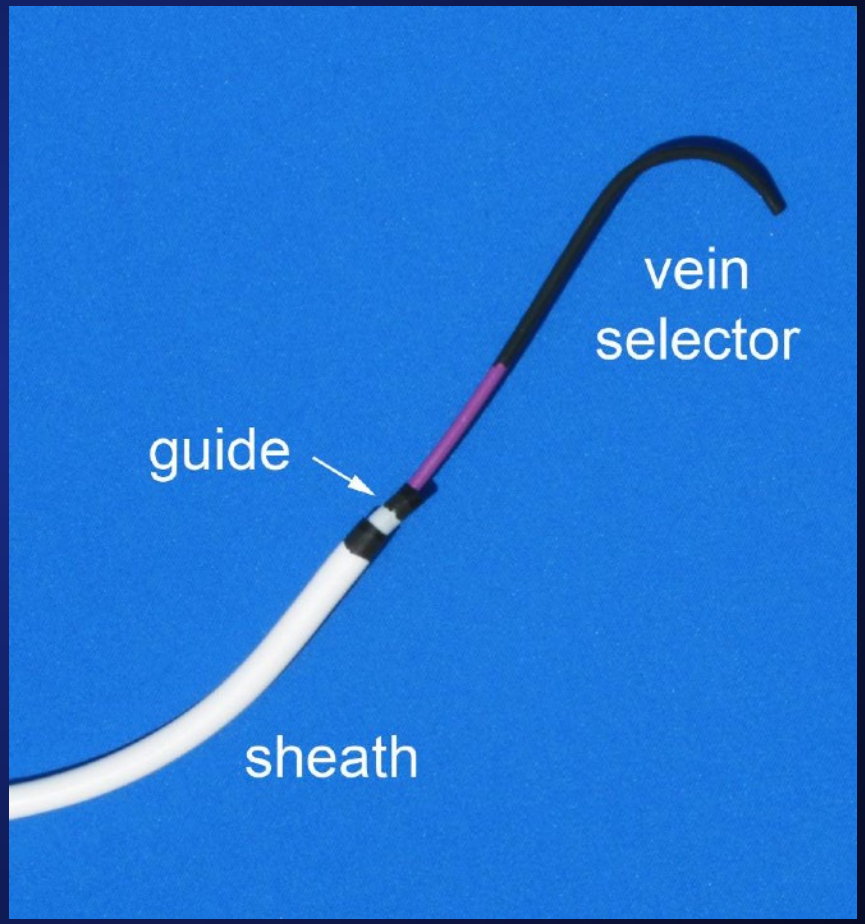
Case 1

- The vein selector/LVI guide were inserted into the long 9 F sheath located in the CS.



Case 1

- The “Renal” LVI guide was advanced to the tip of the the long 9 F sheath located in the CS.
- The vein selector was advanced into the CS.
- The target vein was identified with puffs of contrast from the vein selector

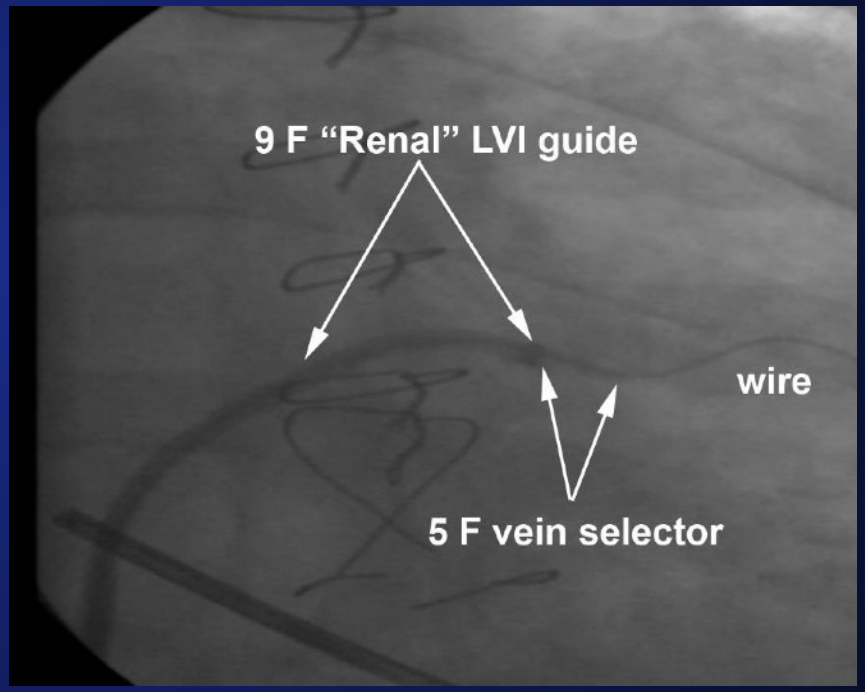


Case 1

- The vein selector was advanced into the target vein.
- An angioplasty wire was then advanced into the vein through the vein selector.
- The vein selector was advanced further into the vein over the wire.

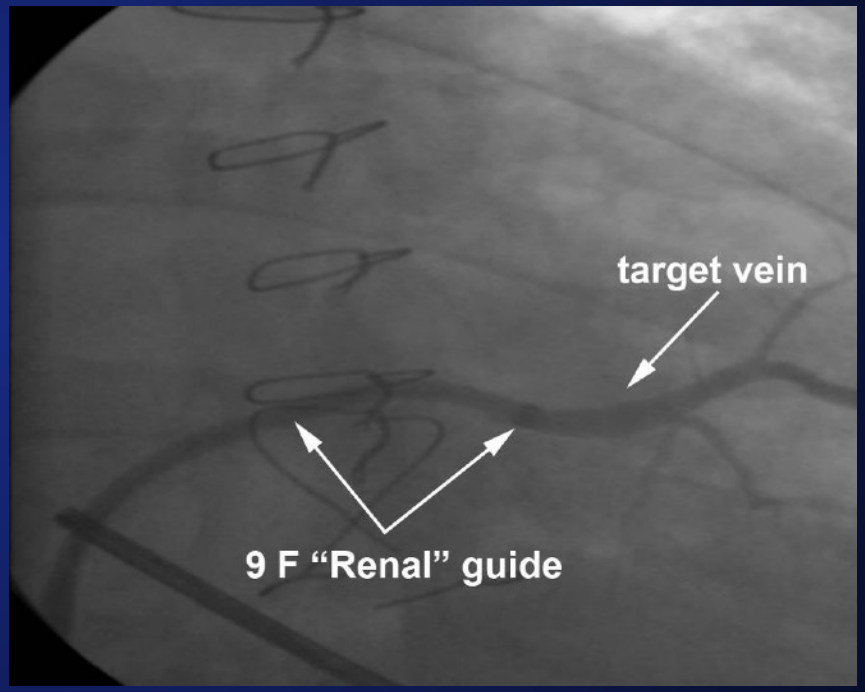
Case 1

- Using the angioplasty wire and a vein selector as a rail the “Renal LVI guide was advanced into the vein.



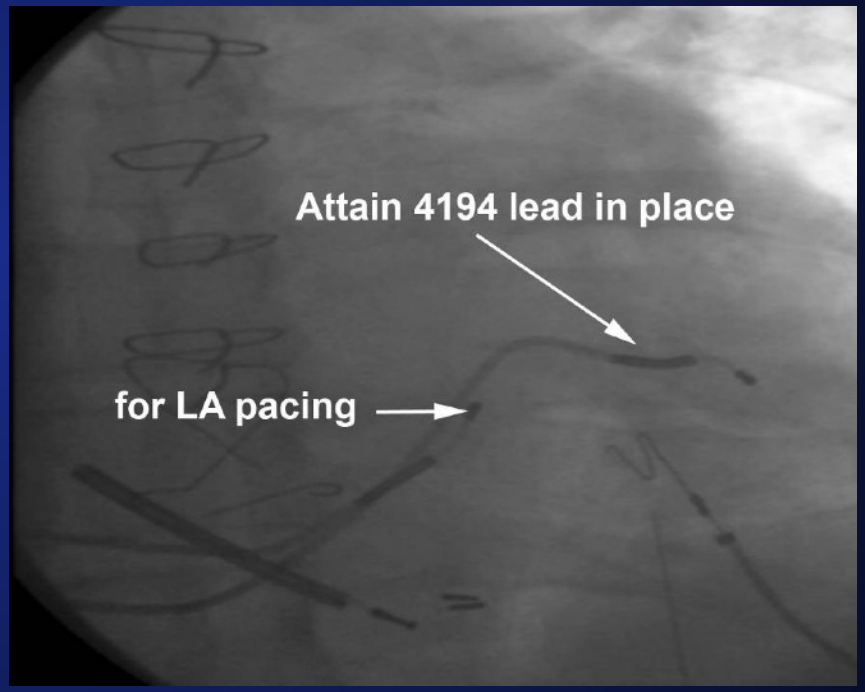
Case 1

- The vein selector was removed.
- Contrast injection confirmed that the tip of the Renal LVI guide was in the vein



Case 1

- The 6 F pacing lead was then easily advanced into the vein.
- The “Renal” LVI guide was cut away
- The sheath was pealed away



Case 1

- The implant time from incision to lead tie down was 25 minutes.

Case 2

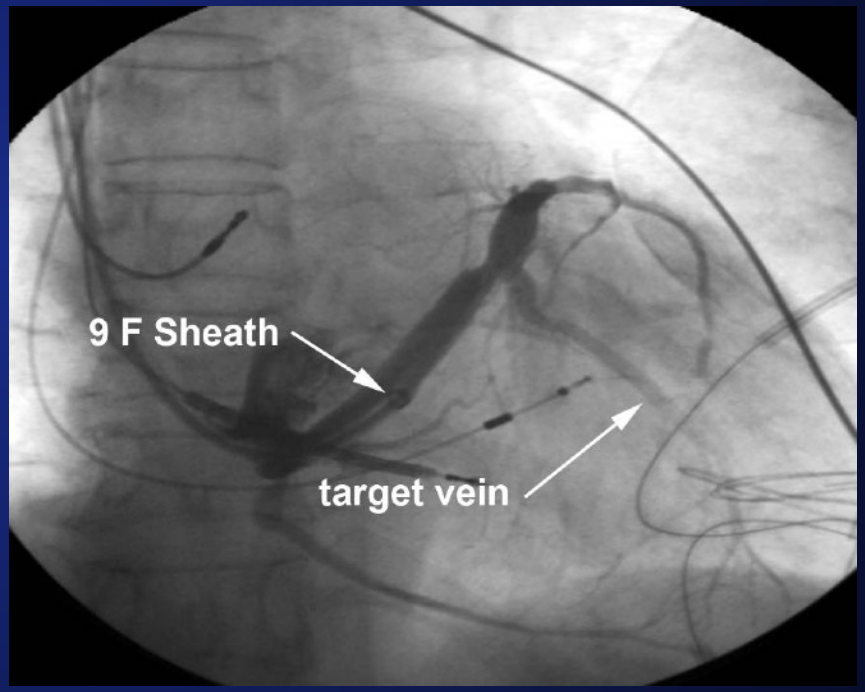
- CRT-indicated 53 year old female was referred to our center following a failed 2 1/2 hour attempt using the device company delivery system.
- The attempt at the other center failed because the LV lead would not track over the wire into the target vein despite the use of multiple types of wires.

Case 2

- At our center initial coronary sinus access was obtained with the 9 F Pressure Products SafeSheathCSG® Braided Core Worley-STD® anatomically-shaped, peel-away sheath.

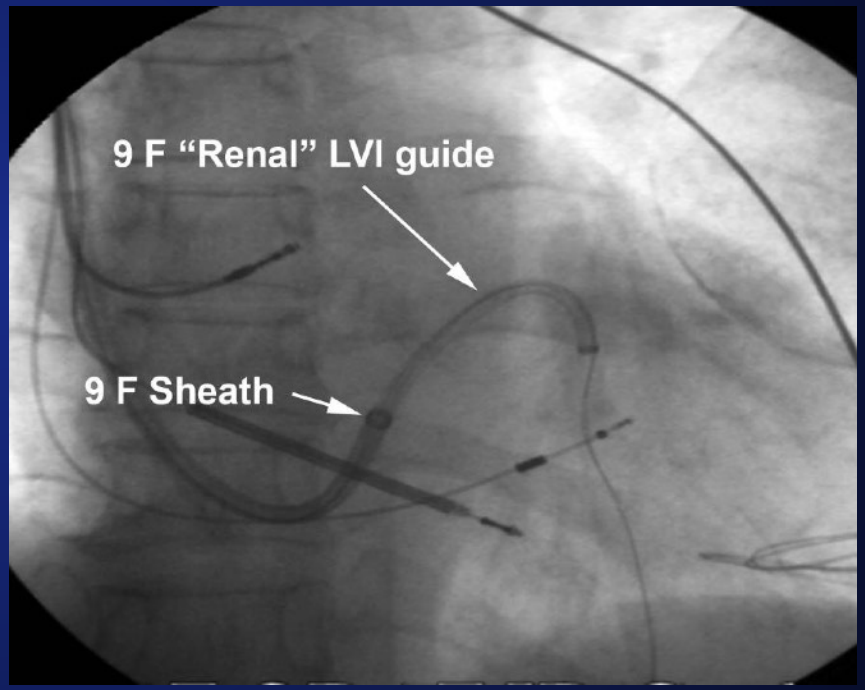
Case 2

- The occlusive CS venogram demonstrated the target vein attempted at the other center



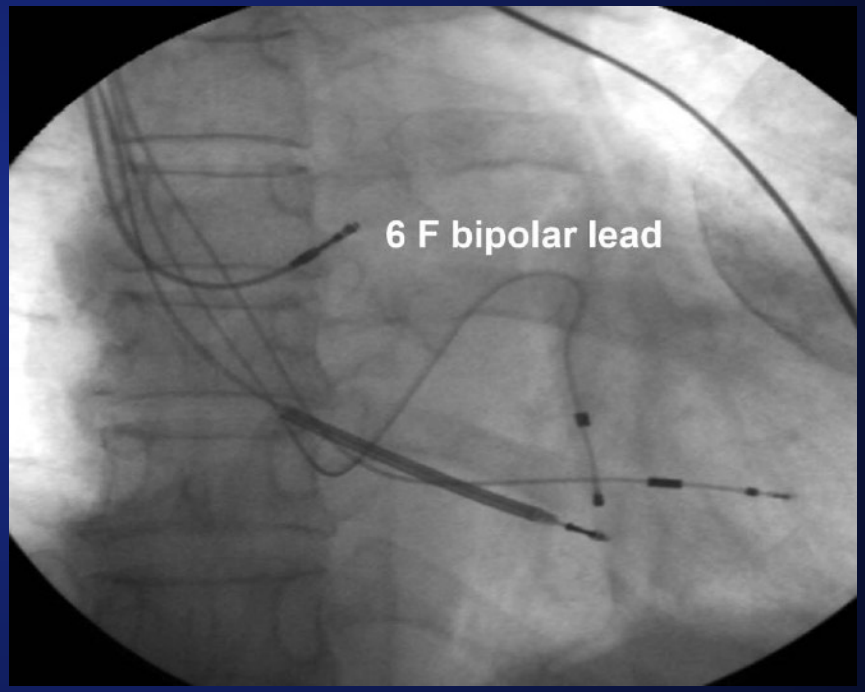
Case 2

- Using the approach described in Case 1 a SafeSheath® Worley 9F Telescopic Braided Series Renal Lateral Vein Introducer® (“Renal” LVI guide) was advanced into the target vein



Case 2

- A 6 F bipolar lead was then advanced into the target vein.
- The guide was cut away.
- The sheath pealed away.
- Implant time was 20 minutes from incision to LV lead tie down



Conclusion

- Inability to advance the LV lead despite successfully placing a wire in the target vein prevents successful implantation in some cases.
- Delivery systems are available that provide the guide support necessary for successful implantation.