Step-by-step Procedure Overview

PulseCath
Engineering the Pulse of Life

Insertion of SLR Catheter

1. Femoral access evaluation (angiography, vascular echo, computer tomography) - If there are no significant disease and no significant tortuosity, SLR approach may be considered.
2. Introduce a 6 Fr sheath in the common femoral artery.
3. Deploy large bore access closure device of choice.
4. Introduce a 0.035 or 0.038 super stiff guidewire into the left ventricle under fluoroscopy. If opting for the SALVA position the super stiff guidewire doesn't need to cross the aortic valve.
5. Progressively dilate the femoral artery to 14FR.
6. Insert the iVAC 2L heparinized catheter with PTFE stillet over the super stiff guidewire and advance. The distal end of the PTFE tube forms into a conical "tip" which sticks out of the catheter tip acting like a dilator for easy insertion into the femoral artery.

   Once the catheter tip is through the femoral access, carefully advance the catheter in the aorta past the aortic arch branches (Brachiocephalic trunk, the Left common carotid artery and the Left subclavian artery) in the aortic arch, nearing the coronary ostia junction.

   Retract the conical tip until the tip is protected by the catheter tip. This is the optimal position for SALVA procedure. If entering the LV is considered, proceed as per IFU.
7. Remove the guidewire followed by the removal of the PTFE stillet and clamp the catheter connector with the metal clamp provided – using a wet-to-wet connection technique, attach the pre-filled membrane pump to the iVAC 2l connector after removing the haemostatic valve/plug.

   Observe for air in the membrane pump before removing the metal clamp. If air is observed, remove the membrane pump, remove air, refill and redo wet-to-wet connection.
8. Connect to the IABP driver and start the pump, observe for any signs of obstruction of indications that the catheter tip has migrated to deeply. If repositioning is required – stop the IABP, reposition and restart the pump.
9. Perform percutaneous coronary intervention. Stop the IABP.

Removal with direct puncture technique

1. Remove the iVAC2L catheter to the ascending abdominal aorta till the catheter is in a vertical position. **Stop the IABP.**
2. Clamp the connector chamber. (Consider returning the blood from the membrane pump back to the patient before clamping).

   Puncture the soft connector with a standard femoral access needle proximal to the metal clamp. Introduce a long polymeric and hydrophilic 0.035 wire through the femoral access needle till the guidewire exits through the catheter tip or catheter valve and is visible under fluoroscopy.
3. Consider placing a protection wire in the radial artery or contra-lateral superficial femoral artery before removing the iVAC2L and starting with large bore closure procedure.
4. Once the guidewire is in place remove the iVAC2L catheter as per IFU instructions.
5. Proceed with closure as per standard guided practice.
6. Confirm haemostasis.