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## **Endovascular management of Inadvertent Subclavian Artery Catheterisation**

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### **Case Study:**

60 year lady on hemodialysis, with thrombosis of AV fistula and right IJV , planned for insertion of uncuffed left IJV catheter under ultrasound guidance. The puncture into the left IJV with non-pulsatile venous blood and catheter insertion was done with good flow from both ports . Chest roentgenogram to check catheter position, the tip of the catheter was not seen to cross the midline and appeared to be lying over the aortic arch. Blood gas analysis from the catheter was suggestive of arterial cannulation. Computed Tomography Angiography (CTA) showed the catheter tip in the ascending aorta . Radiocontrast injection via the catheter revealed a flow of contrast in the aortic arch. Digital subtraction angiography visualized the catheter entry point into the arterial system in the proximal left subclavian artery adjacent to the origin of the left vertebral artery which being the dominant vessel. Placement of a covered stent was considered . There was risk of stroke owing to proximity of origin of the vertebral artery and a dual artery stent placement was planned. The position of the tip of the catheter was confirmed and an AMPLATZ exchange wire was passed ,an EVERCROSS 10mm x40 mm balloon was passed over the exchange wire and positioned over the inadvertent puncture site in the left subclavian artery. The catheter was removed and the balloon was inflated, as there was extravasation of dye. Multiple inflations were needed. Post inflation injection revealed sealing of the puncture site and no further extravasation of the dye. Stent placement was deferred. The patient was stable post procedure and discharged from the hospital after a week. Conclusion While endovascular placement of covered stent provides an efficient form of treatment, balloon dilatation and tamponade is an effective modality and may negate the requirement of covered stents and related costs if successful.