

## CASE REPORT

# UNUSUAL MALPOSITION OF CENTRAL VENOUS CATHETER - A CASE REPORT

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## ABSTRACT

We report a case of malpositioning of central venous catheter in axillary vein. We experienced interesting and rare malpositioned catheter tip in to axillary vein while attempting to cannulate through internal jugular vein.

**Keywords:** Malposition, Central Venous Catheter, Axillary Vein

## INTRODUCTION

Central venous cannulation is commonly used and indicated for central venous pressure monitoring, peripheral cannulation of central line, intravenous administration of various drugs likely to injure peripheral veins and tissues, rapid infusion of blood and fluids, frequent mixed venous sampling, aspiration of air emboli, hyperalimentation, and insertion of pulmonary artery catheter etc.

However, regardless of the usefulness of central venous cannulation, it may cause some complication, such as local and /or systemic infection, injury to nerve, artery and vein, hematoma and extravasation of infused substances, thrombophlebitis, shearing of catheter and embolisation, air embolism, perforation of right atrium, thoracic duct and pneumothorax etc. which may occur in various ways according to the veins and techniques used. Therefore, various easy and safe techniques for central venous cannulation have been developed to minimize these complications, but a few complications are still reported.

We experienced interesting and rare malpositioned catheter tip in to axillary vein while attempting to cannulate through internal jugular vein.

## CASE REPORT

A 35 year old patient of road traffic accident was admitted in Intensive care, as a case of head injury. Central vein cannulation was planned as a routine and Internal jugular vein was chosen for the procedure. Skin preparation was done with povidone-iodine. A sterile drape covered the surrounding area and a sterile technique was followed until the procedure was

completed. After cannulation chest x ray shows catheter was in right axillary vein.



**Fig 1:** chest x ray of the case

## DISCUSSION

Aubaniac first time describe the central venous catheterization in 1952.<sup>1</sup> In critical care unit, the choice of site for central venous cannulation is determined by accessibility, patients clinical status and operators preference.

Insertion of a central venous cannulation is associated with immediate and long term complications. These immediate include malposition, pneumothorax, hemothorax during the procedure.<sup>2</sup> Late complications include blockade, thrombosis, sepsis, embolus and tip migration.<sup>3</sup> The ideal position of the catheter tip is at the SVC-right atrial junction or in the inferior vena cava at the level of the diaphragm. In our unit, the position of the line is usually confirmed by plain chest

radiograph before parenteral nutrition is commenced. Additionally, it is recommended to recheck the tip with serial X-rays, especially in the event of an unexpected cardio respiratory event.<sup>4</sup>

## REFERENCES

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