

Ultrasound a Savior for Lost Central Line

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Abstract

Central line insertion is often needed for perioperative care as well for patients admitted in intensive care units. It has well established advantages for drug and nutrition delivery. Ultrasound guidance has improved first prick success rate as well as reduced the peri-procedural complications. We encountered an unusual situation of dissection right IJV central line catheter with buried end under the skin. Careful planning was done and interventional endovascular removal of lost catheter was planned. Ultrasound scanning of neck was done to evaluate and assess the position and direction of the catheter and its findings changed the initial plan. During this crises ultrasound came as a savior to help removal of catheter avoiding major interventional procedure.

Keywords: Ultrasound, Central Line.

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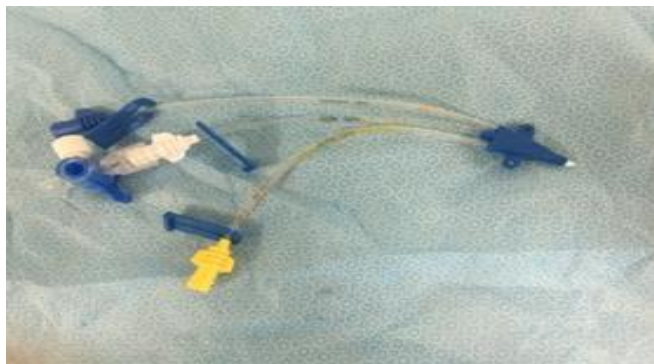
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Introduction

Central line insertion is often needed for patients undergoing surgery for drug delivery and hemodynamic measurements for both intraoperative and postoperative period.

Ultrasound -guided CVP placement is associated with significantly higher success rates and decreased number of attempts required for cannulation.^[1-4] There are several complications associated with CVP catheter line like pneumothorax, malposition of tip, arterial puncture, infections etc.^[5] We encountered an unusual situation of dissection CVP catheter with buried end under the skin.

Case Report



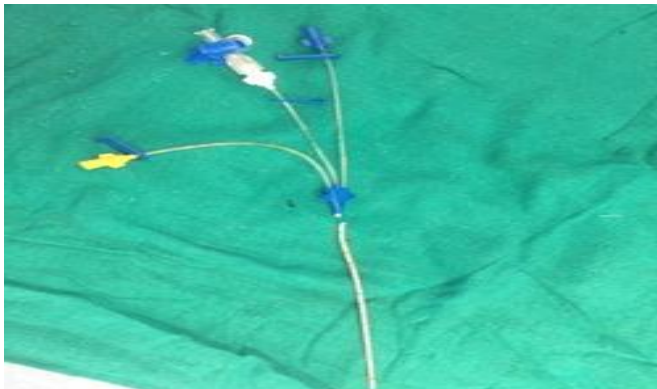
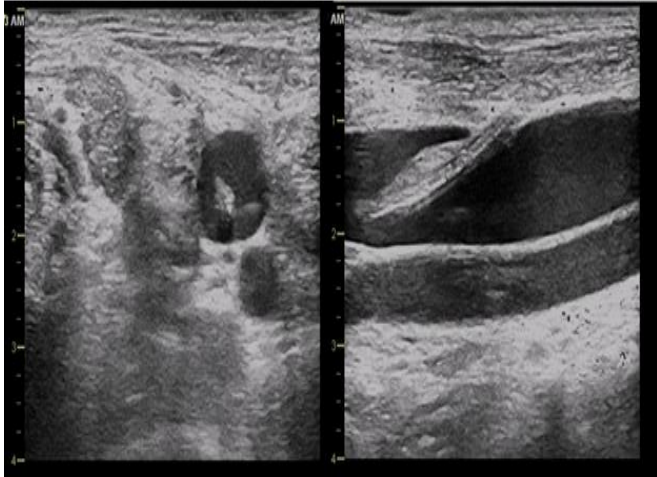
A 18 year old female who was a postoperative case of mitral valve repair was recovering well in postoperative cardiac surgical intensive care unit. On post-operative day four it was decided to remove her right IJV CVP and shift her to

step down ward for further recovery. During the removal of central line fixing suture, CVP catheter lumen was inadvertently dissected into two parts with one end buried under the skin and another one outside. [Figure 1 & 2]



This was an unanticipated and panicky situation. Patient was immediately turned to reverse tendenberg position to avoid downward displacement of catheter. Careful examination was done and patient's dissected end was not visible. After consultation with anesthesiologist, cardiologist and cardiac surgeon endovascular removal of lost catheter was planned. During further assessment ultrasound scanning of neck was done to evaluate and assess the position and direction of the catheter. Short axis and long axis views were obtained which revealed proximal end of the CVP catheter was buried in

subcutaneous tissue few millimeters under the skin. [Figure3]



In view of the above usg finding, ultrasound guided skin incision was given over the tip and the catheter was grabbed with mosquito forcep with careful and gentle dissection. [Figure 4 &5]. Haemostatis was achieved with compression for few minutes and surgical site was closed with subcutaneous sutures. Patient vitals were stable throughout the procedure. Further course of the patient was uneventful.

Discussion

Central line catheter placement is associated with numerous complications but accidental dissection of catheter with one end buried under the skin is a rare situation. It was an unanticipated unseen situation. Similar complication of CVP catheter is never reported.

During this crisis ultrasound came as a savior to help removal of catheter avoiding major interventional procedure.

Conclusion

Ultrasonography plays a pivotal role not only as a guide for routine CVP placement but also to identify any unanticipated complications and hence we recommend its use for early identification and management of unforeseen CVP related complications.

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