

Innovative Use of Patients Own Hair for Holding Central Line

Imran Pathan¹, Ravi Kumar Chittoria², Saurabh Gupta³, Chirra Likhitha Reddy⁴,
Padmalakshmi Bharathi Mohan⁵ Shijina K⁶

Author's Affiliation: ^{1,3,4,5,6}Senior Resident, ²Professor, Department of Plastic Surgery, Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry 605006, India.

How to cite this article:

Imran Pathan, Ravi Kumar Chittoria, Saurabh Gupta, et. al., Innovative Use of Patients Own Hair for Holding Central Line. New Indian J Surg. 2020;11(3):423-424.

Abstract

Central venous access is an integral part of critical care. It is used for – drugs or fluid infusions, parenteral nutrition, hemodynamic monitoring as well as for dialysis. This routine procedure is also associated with numerous complications. Proper care of central line is very important to prevent many of these complications. Central line is secured in place by sutures and dressing. Often dressing gets dislodged especially in neck region. In this article we describe an innovative and cost effective way of holding central line.

Keywords: Central line; Catheter; i.v.

Introduction

Central line is a common in usage in plastic surgery for indications like burns, polytrauma and also when intensive monitoring of the patient is required. Central lines are usually put in various regions – cubital region, femoral triangle, subclavianor in the neck region. These lines are mostly put by anaesthetist or the experts of this field. Central line has its own advantages and disadvantages. Central line has a risk of infection due to biofilm formation. It should be removed as early as possible when the indication is over. Recently, in a patient with extensive soft tissue

injury, we had used central line in the neck region for monitoring, forparentralnutrition and for fluid management. To hold the catheter in situ various dressing are used like-paper tape, transparent film, fabric tape etc. But these dressings frequently get dislodged because of frequent manipulation, neck movement, and weight of catheter and extension tubes. In this article we share our experience of a central line where patients own hair was used to hold the central neckline.

Methodology

This case report is of a 36 years female admitted in a tertiary care hospital during month of January – February 2020 for extensive soft tissue injury following a road traffic accident. Central line was put in right internal jugular vein (IJV) by anaesthetist in the operation theatre because it was very difficult to have peripheral line. After 7 days, it was found that line got blocked. On bed side ultrasonography it was found that there was a big thrombus of 5 cm x 1.2 cm surrounding the IJV catheter. Decision was made to discontinue the use of that IJV line and removal of catheter. Because of large thrombus and risk of embolism, immediate removal was not done. The central line was discontinued but not removed. Because of the weight of the line it tends to fall with the risk of decannulation. It was difficult to hold with adhesive tape also because of neck movement and head hair. The central line dressing was again and again coming out. We thought of using patients own hair as a holding device for the central line. The patient hair was made into a braid and was fixed

Corresponding Author: Ravi Kumar Chittoria, Professor, Department of Plastic Surgery, Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry 605006, India.

E-mail: drchittoria@yahoo.com

with the central line with a rubberband (Fig. 1 and fig. 2). With this innovative way the patient felt less pain because of the support and was satisfied.



Fig 1: Catheter held by rubber band tied with hair plait, no traction at dressing site.



Fig 2: Superior view of catheter held by rubber band tied with hair plait.

Discussion

Central line insertion is a common procedure. It is frequently done in case where peripheral access is difficult or when critical monitoring is required.

Although it a routine procedure performed by anaesthetist, it does have serious complication associated with it like- bleeding, hematoma, thromboembolism, air embolism, pneumothorax etc.^{2,3} These catheters are secured to skin via suture placement over which sterile dressing is placed. In practice it is often seen that these dressing are frequently give ways because of frequent handling of catheter for injection and because of patient movement. In addition to it, the weight of catheter also pulls suture lines. In such cases any movement pulls on suture line and causes patient discomfort. Apart from it there is always a risk of catheter dislodgement.

We have used patient's own hair to hold the hair and found it to effective. Patient also felt more comfortable as there was no constant pull on catheter.

Conclusion

In this case we found this technique to be easy and effective. But since it is a single case study, definite conclusion cannot be made. Large randomized control trials are required to confirm the efficacy of this method.

Conflicts of interest: None.

References

1. Kornbau C, Lee KC, Hughes GD, Firstenberg MS. Central line complications. *Int J Crit Illn Inj Sci.* 2015;5(3):170-178.
2. Cotogni P, Pittiruti M. Focus on peripherally inserted central catheters in critically ill patients. *World J Crit Care Med.* 2014 Nov 4; 3(4):80-94. Epub 2014 Nov 4.
3. Karimi-Sari H, Faraji M, Mohazzab Torabi S, Asjodi G. Success rate and complications of internal jugular vein catheterization with and without ultrasonography guide. *Nurs Midwifery Stud.* 2014;3(4):e23204.