

Tunnelled central venous catheters: case study about a personalised approach to exit site care

Susana Garcia¹, Rita Trindade¹, Natália Gonçalves¹, Bruno Pinto², Ricardo Peralta², João Fazendeiro Matos²

¹Fresenius Medical Care, NephroCare Alverca, Alverca, Portugal

²Fresenius Medical Care, NephroCare Portugal, Porto, Portugal

Introduction

Although not desirable and being the badly-loved vascular access for dialysis, Central Venous Catheters (CVC) have a central role for accessing the bloodstream of patients starting dialysis and/or having vascular comorbidities, hindering the construction of an internal vascular access.

There is a wide range of dressing types as well as disposables safety features to address the CVC's exit site, to protect it from microbiological colonization and provide comfort for the patient. However, allergic reactions to both adhesive and antiseptic solution are not uncommon.

Objectives

To describe a CVC safety procedure in patients with both allergy to adhesive strips and antiseptic solution.

Methods

This is a case study of a 78 year old male on dialysis for 24 months with CVC for the past 8 months, with signs of a severe allergic reaction in the skin surrounding the exit site. A technical protocol was established for all treatments, including monitoring, using a visual scale and procedures in four distinct periods: before the connection, after the beginning of the dialysis treatment, after disconnection, and at the end of treatment. A visual scale was used to compare lesion evolution and a non-adhesive silver-coated film dressing was used, over the entire length of the lesion.

Results

At the beginning of protocol implementation, the patient had a diagnosed allergic dermic lesion of approximately 11 cm around catheter's exit site. For a proper follow-up and assessment of the lesion's evolution, visual records were taken at the beginning of the dialysis sessions.

With the use of non-adhesive silver-based film dressing and minimal contact of adhesive strips with the skin, healing of the lesion was observed after 1 week of protocol establishing.

Conclusion

Individual patient care is considered an important component of continuous nursing assessment, proactively attending special needs in overcoming barriers in HD patients avoiding major clinical events and even hospitalisation. Considering the positive results obtained, we applied the same protocol to other patients in similar situations. In this case study, the nurse's role was crucial in minimising harm for the patient, while potentially contributing to increase patient's quality of life.

References

1. Ullman, A. J., Cooke, M. L., Mitchell, *et al.* (2015). Dressings and securement devices for central venous catheters (CVC). *Cochrane Database of Systematic Reviews*, 9(9), CD010367-pub2.
2. O'Grady NP, Alexander M, Burns LM, *et al.* Guideline for the prevention of intravascular catheter-related infections. *Clin Infect Dis* 2011; 52:e162-e193.
3. Pearson ML. Guideline for prevention of intravascular device-related infections. Part I. Intravascular device-related infections: an overview. The Hospital Infection Control Practices Advisory Committee. *Am J Infect Control* 1996;24:262-77.
4. Mermel LA. Prevention of intravascular catheter-related infections. *Ann Intern Med* 2000;132:391-402.



Picture 1 - Dermic lesion visual aspect at protocol establishing



Picture 2 - Dressing with non-adhesive silver-based film



Picture 3 - Close dressing at the end of dialysis



Picture 4 - Dermic lesion visual aspect at 1 week after protocol establishing