

The challenge of vascular access in a burn patient.

A case report

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Introduction

Burn patient are challenging when a Vascular Access Device (DAV) is required, due to the risk of infective complications in general and insertion and securement of a DAV.

On June 6th, 2023, a 26-year-old male patient was accepted in Burns Service of University Hospital Virgen del Rocío (Seville). His clinical situation was burn injuries on 42.5% of his body and dislocated right shoulder. Distribution of these burns were in the lower limbs, leaving free feet, abdomen and both upper limbs, being completely blindfolded.

Patient was then transferred to University Hospital Virgen de las Nieves (Granada) to the plastic surgery Service (PSS) on October 31st, 2023, needed a vascular access for intravenous (IV) therapy, including fluids and non irritant or vesicant drugs.

Description

- On admission at Plastic Surgery Unit, a central line (CVC) in right subclavian vein was canalized for IV therapy and impossibility of insert a peripheral venous catheter (PVC).
- A few days later, patient presented fever. Staph. epidermidis was detected in blood sampling from CVC only and K. pneumoniae and Pseudomona in urine test. Antibiotic coverage was administered. The CVC was removed after 10 days of its insertion with no confirmation of blood infection due to impossibility of peripheral vein culture.
- Vascular access team (VAT) was asked for assessment and potential insertion of a new DAV.
- A midline (1 lumen 25cm) was inserted in left axillary vein, in yellow zone of Dawson.
- A 9 cm “U shape” tunneling was performed by 14G cannula to the external area of the left arm, taking advantage of the healthy skin window between the left armpit and the beginning of the bandage. Exit site was created in a safe area with no-burn integral skin. Catheter was secured with SecurAcath® (image 1)
- Midline tip was observed by ultrasound in subclavian vein.
- From November 18th, 2023, to the present (24th January, 2024 –abstract submission date-), the line is still in place and working free of complications, a total of 82 days (image 2)

Conclusions

Although bur patients can be a challenge when inserting a DAV, a correct assessment and exit valuation, together with tunneling technique can be the optimal way to manage the decision and reduce complications.



Image 1



Image 2

References

You can check the references used for this work in the next QR code:



Authors declare no conflict of interest