The placement of the tunnelled midline catheter is shown to be a safe and effective way to ensure vascular access for almost 2 months” Fabiani et al (2018).

Abstract:

INTRODUCTION: A safe, largely used practice for difficult venous access patients is positioning a catheter in deeper veins under ultrasound guide. However, the risk of complications is increased when there is a high catheter-to-vein ratio or when the insertion site is in a zone with particular anatomical/physiological characteristics.

CASE DESCRIPTION: A 60-year-old woman admitted to a post-operative intensive care unit after cardiac surgery had a complicated post-operative course. After the removal of a central venous catheter, it was necessary to insert a midline catheter. A complete ultrasound evaluation showed that only the axillary vein was suitable for direct cannulation. To avoid creating an exit site in the axillary cavity, the decision was made to tunnel the catheter to locate an exit site in a safer position. A guidewire was introduced through a needle in the axillary vein. A tunnel was created using a subcutaneous injection of lidocaine. A 14 G/13.3 cm peripheral venous catheter was inserted in the subcutaneous tract. A 4 Fr/20 cm catheter was introduced through the peripheral venous catheter and moved to the axillary vein through the previously inserted sheath. No acute complications occurred. The catheter was accessed several times a day during the period following its insertion to infuse drugs and take blood samples. It was removed 50 days after its placement because it was no longer needed. No symptomatic thrombosis or infections occurred.

CONCLUSION: The placement of the tunnelled midline catheter is shown to be a safe and effective way to ensure vascular access for almost 2 months.

Reference:

Fabiani, A., Dreas, L. and Sanson, G. (2018) Tunnelling a midline catheter: When the traffic
light shifts from yellow to green. The Journal of Vascular Access. April 1st. 