

FICC-Port Implantation in a Patient with Superior Vena Cava Thrombosis: A Case Report

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Introduction

The selection of an appropriate vascular access device is essential to ensure the effectiveness and safety of intravenous therapy, particularly in oncology patients who require long-term central access. When upper-extremity venous access is not feasible, the femoral approach has traditionally been avoided due to concerns about infection and thrombosis. However, with the development of new protocols and technological advances, femorally inserted central catheters with a port (FICC-Ports) are now being reconsidered as a safe and viable alternative.

Objective

To describe the process of FICC-Port implantation in a patient with superior vena cava thrombosis, incorporating nursing interventions and established protocols to optimize procedural safety and minimize complications.

Methods

This is a descriptive case study of a single patient with superior vena cava thrombosis, in whom implantation of a FICC-Port was selected, following the RaFeVA (*Rapid Femoral Vein Assessment*), SIF (*Safe Insertion of Femorally Inserted Central Catheters*) , and femoral ZIM (*Zone Insertion Method*) protocols.

Case Summary

A 53-year-old male with a diagnosis of mucinous adenocarcinoma of the gastrointestinal tract:

- ✓ 09/05/25 Removal of a chest port due to local infection.
- ✓ 28/05/25 Attempted placement of a new chest port by the general surgery team, which was unsuccessful.
- ✓ 20/06/25 Attempted placement of a PICC-Port, but guidewire advancement was unsuccessful. Contrast injection under fluoroscopy revealed markedly tortuous veins, collateral circulation, and absence of flow toward the superior vena cava in both upper extremities (Figures 1–2).

Given these findings and the need for reliable central venous access for chemotherapy, FICC-Port implantation via the common femoral vein was performed, following the protocols described in the methodology.



Figure 1

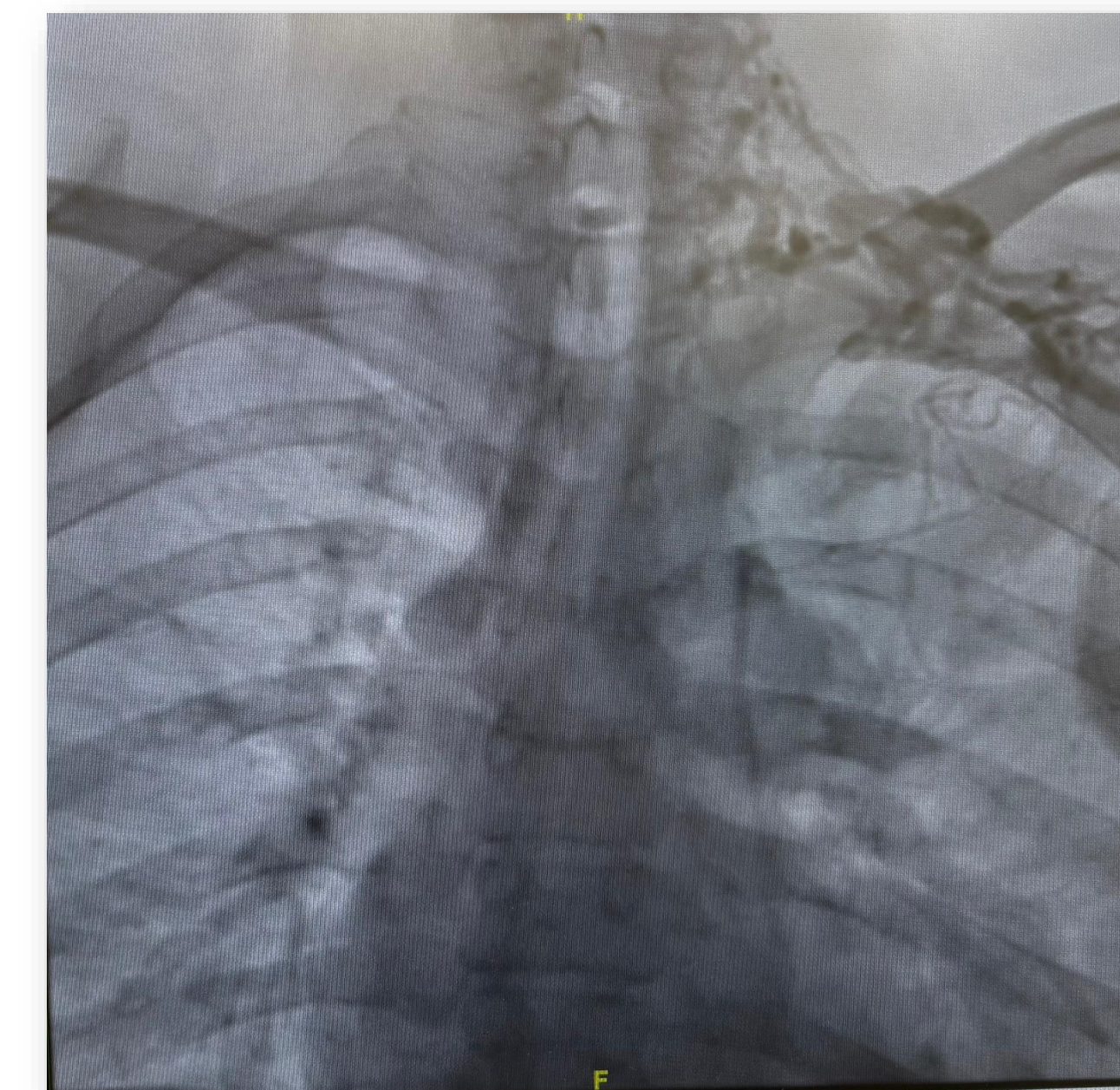


Figure 2

Results

At the first follow-up, 72 hours after implantation, the device was functioning properly and no complications were observed. The catheter remains in use at present.

Conclusion

The FICC-Port is an effective and safe device when implantation is performed in accordance with evidence-based protocols and techniques.

- ✓ SIF Protocol
- ✓ RaFeVA Method
- ✓ Femoral ZIM (Figure 3)

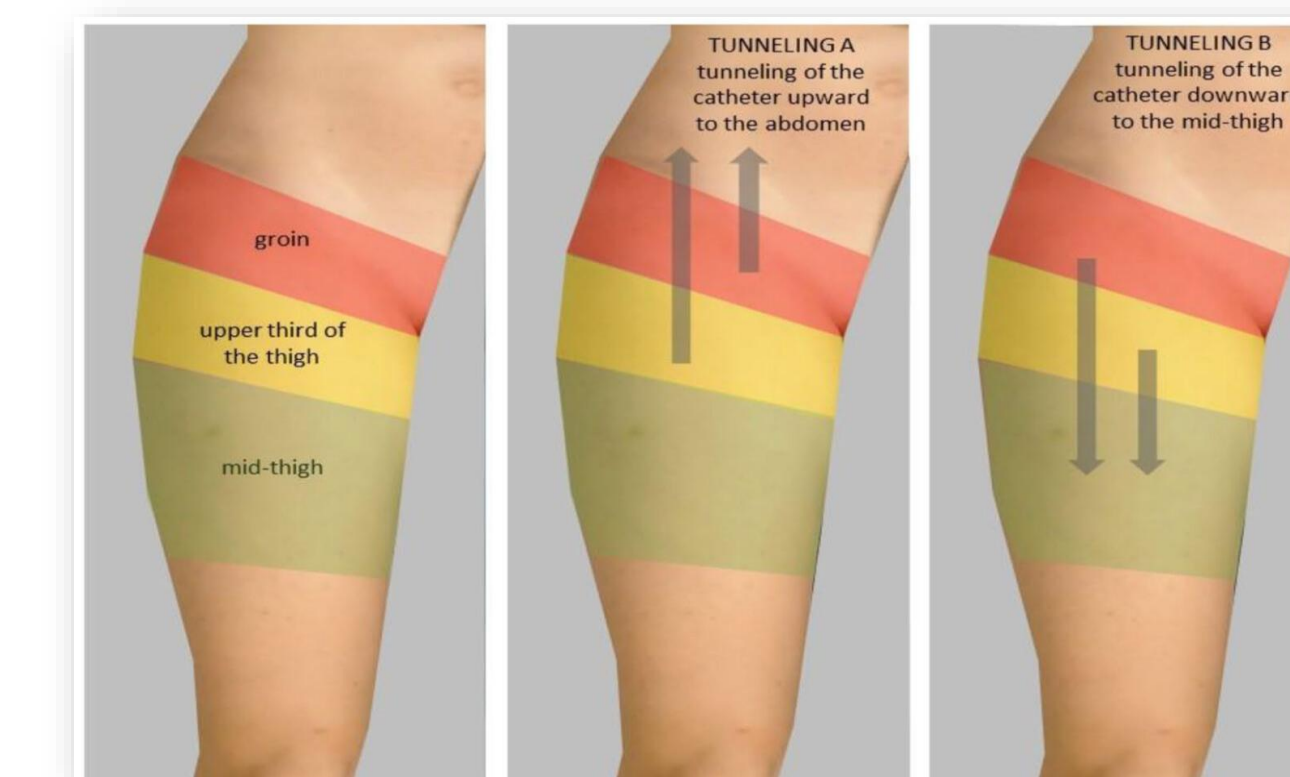


Figure 3 (Brescia et al. 2021)



FICC-Port Implantation Video

Bibliography

- Brescia F, Pittiruti M, Ostroff M, Spencer TR, Dawson RB. The SIF protocol: A seven-step strategy to minimize complications potentially related to the insertion of femorally inserted central catheters. J Vasc Access. 2023;24(4):527-534. doi:10.1177/11297298211041442.
- Brescia F, Pittiruti M, Ostroff M, Biasucci DG. Rapid Femoral Vein Assessment (RaFeVA): A systematic protocol for ultrasound evaluation of the veins of the lower limb, so to optimize the insertion of femorally inserted central catheters. J Vasc Access. 2021;22(6):863-872. doi:10.1177/1129729820965063.
- Brescia F, Annetta MG, Pinelli F, Pittiruti M. A GAVeCeLT bundle for PICC-port insertion: The SIP-Port protocol. J Vasc Access. 2023;24(6):11297298231209521. doi:10.1177/11297298231209521.

