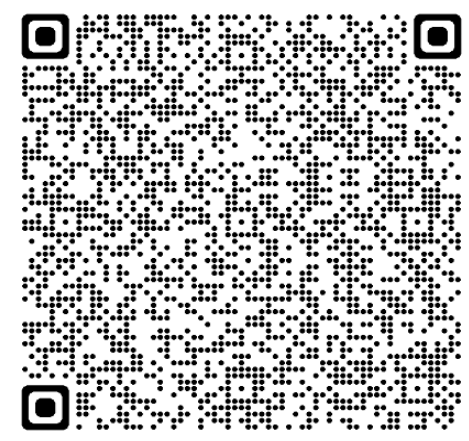




Our experience in PICC-Port positioning in breast cancer patients in UAV (Vascular Access Unit) of Spedali Civili of Brescia, the largest hospital in north of Italy

Stefano Benvenuti, Cristian Pintossi, Elena Porteri, Gabriele Bartolini, Barbara Schettino, Francesca Zanatta
Vascular Access Unit - ASST Spedali Civili of Brescia. Italy

Background: PICC-Ports are fully implantable devices inserted under the skin of the arm; they represent the device of choice for those who require long-lasting infusive therapies (longer than 3-6 months) with occasional use (1-2 times a week).

Aim: The aim of this study is to present our experience in PICC-Port use in Breast Cancer patients.

Methods: We analyzed 93 patients who underwent PICC-Port placement for breast cancer chemotherapy. (Age: 16 to 63 years old). PICC-Ports were placed on the arm contralateral to the affected breast. In 38 patients we applied a Pseudotunnel Technique with venipuncture of Axillary vein without the little incision in the axilla.

Results: We observed only two complications: a drug extravasation and a rotation of the reservoir in its pocket. No complications using pseudo-tunneling technique. The device was greatly appreciated by patients for its ease of use and privacy

Conclusions: In our experience Picc Port is a valid alternative to the Thoracic Port and PICC especially in young women



The signs on the arm refer to the site of the identified veinpuncture in the axilla at 5 cm from the Port pocket incision (2cm)



Longitudinal incision on the medial face of the biceps



At the end of the procedure the Port is placed on the anteromedial side of the biceps, slightly distally to the incision



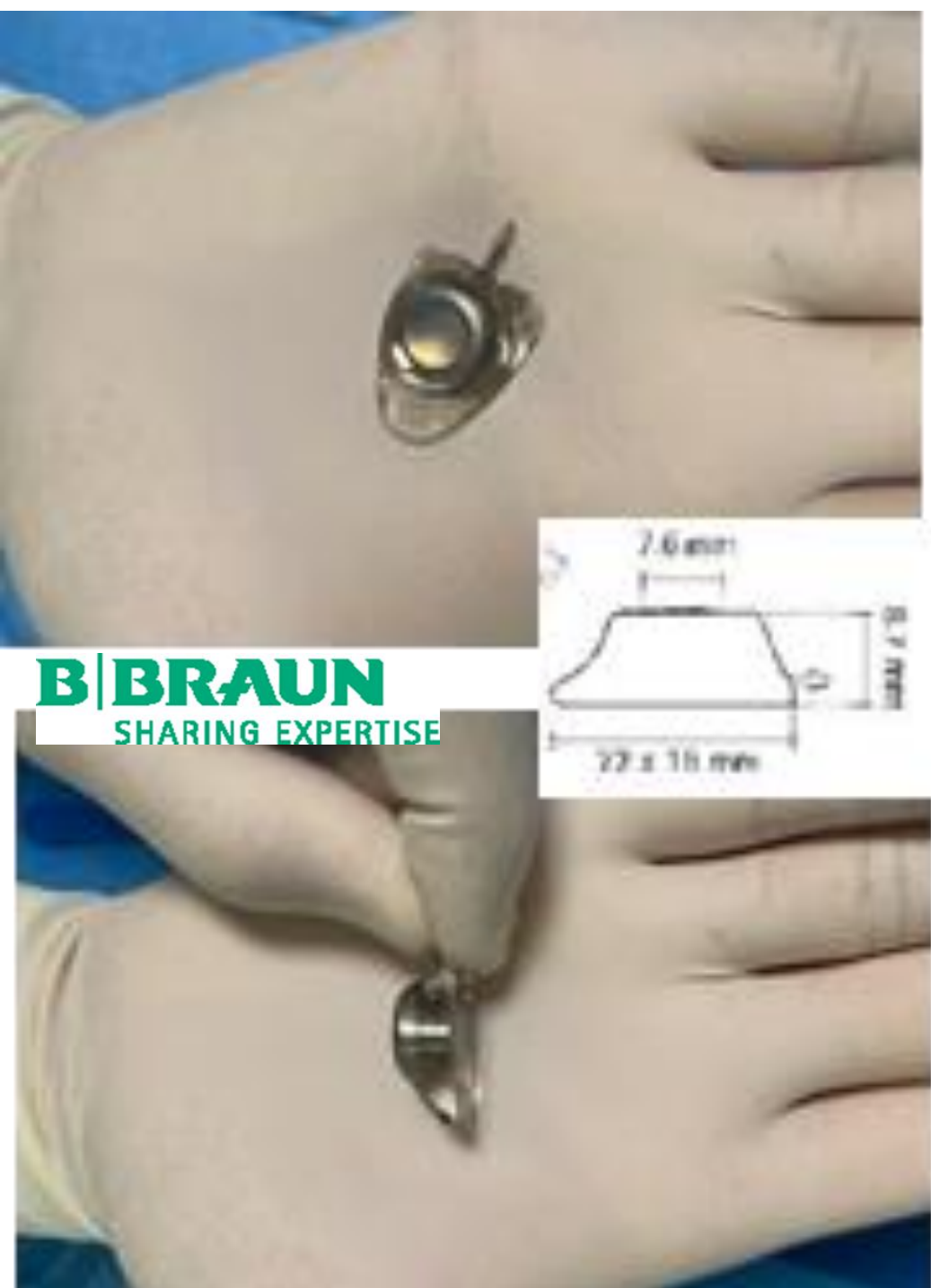
The needle reaches and penetrates the wall of the vein under ultrasound guidance. Note that the needle is almost completely inserted into the subcutaneous tissue. The venipuncture is performed place with a syringe in suction mode



Port pocket obtained by an inverted "L" shape direct towards the upper face of the biceps and towards the elbow



Aesthetic result 4 months after placement



Medical engineering research has favorably reduced the Port size (height 8,7mm)allowing the housing at the arm. The catheter has a 5 Fr size

Introduction: In the last five years, the use of Brachial Ports or Picc-Ports in oncological patients has become increasingly widespread. PICC-Ports are totally Inserted Central Catheters (TIVADs) housed at he internal face of Biceps muscle of the arm. The ideal candidates are young women with breast cancer who will undergo chemotherapy treatments. The alternative devices are thoracic Ports and Peripherally Inserted Central Catheter (PICCs); for first one, Port placement could have some risks of Carotid Puncture, Pneumothorax, hemothorax and bleeding. The presence of the Port ruins the image of the décolleté both for the scar and for the presence of the visible swelling of the reservoir inserted under the skin. For young women already suffering from a worrying diagnosis that could affect one's vision of femininity and the appearance of the self, the insertion of this device could have a very high psychological impact, like having imprinted a mark that reminds them and their relatives to the pathology they suffer, like a "stigmata". Even when the Port is removed at the end of therapy, the visible scar permanently damages the décolleté region.

The second one, PICC line, forces patients to come to the hospital every week for the dressing change. Picc limits patient's life since they cannot immerse their arm freely, or going to the swimming pool or into the sea. It's more visible then a Port and needs a Picc protectors or to dress a long-sleeved shirt to hide it. Patient's social life is reduced because could represent a problem during the partner approach and during the children's management.

Unlike PICCs, PICC-Ports as thoracic Ports, require dressing every one/two months, significantly limiting patient's hospital access.

PICCs can also lead to exit site infections and medical adhesive-related skin injuries (MARSI).

Materials and Methods: We analyzed 93 patients who underwent BBraun Brachial Ports placement for breast cancer chemotherapy. (Age: 16 to 63 years old). PICC-Ports were placed on the arm contralateral to the affected breast. In 38 patients we applied a Pseudotunnel Technique with venipuncture of Axillary vein without the little incision in the axilla.

Results: We observed only two complications: a drug extravasation and a rotation of the reservoir in its pocket. No complications using pseudo-tunneling technique. The device was greatly appreciated by patients for its ease of use and privacy.

Conclusions: We can therefore say that PICC-Ports have all the advantages of thoracic ports, but without their disadvantages like the absence of major complications durung insertion and anyway a better cosmetic results. Compared to PICCs the advantages are superior in all respects. In conclusions PICC-Ports have a low risk of malfunctions, almost non-existent limitations of daily life and physical activity, absence of exit site complications and involuntary removals, no weekly dressing/flushing and minimal non-disfiguring residual scar, less anxiety and greater patient satisfaction.

PERIOD	January to December 2023
NUMBER OF PICC-PORTS IMPLANTED	103
BREAST CANCER	93 (38 with Pseudot. Tech.)
MIDDLE AGE (years)	44,6 (16–63)
WITH PSEUDOTUNNELING TECHNIQUE	38
PROCEDURAL TIME (min.)	25' (15'-50') - 35' with Pseudot. Tech.
REMOVED	18 (16 at the end of therapy - 2 for complications)
IN USE	75
COMPLICATIONS	-1 drug extravasation -1 Port rotation in its pocket -No complications with Pseudot. Tech.
PATIENT SATISFACTION	
VERY GOOD	87 (35 with Pseudot. Tech)
GOOD	4 (3 with Pseudot. Tech)
SUFFICIENT	1 (patient with port rotation)
NOT SATISFIED	1 (patient with drug extravasation)