

VI Convegno Nazionale GAVePed

*Accessi venosi nel
neonato e nel bambino*

SIMPOSIO VYGON | 14 maggio

dalle **13:30** alle **14:30** nella **Sala Bianca B**

**L'APPLICAZIONE DELLA TECNICA DI SELDINGER
NELL'ACCESSO VASCOLARE NEONATALE E PEDIATRICO**

Moderatore: *Dott. Mauro Pittiruti*

Tecnica di Seldinger Diretta nel cateterismo Venoso
Centrale e Periferico.

Dott. Vito D'Andrea

DAV neonatale

- Catetere attraverso la vena
- Catetere su ago
- Catetere attraverso l'ago
- Catetere su guida
- Catetere attraverso l'introduttore

DAV neonatale

- Catetere attraverso la vena
- Catetere su ago
- Catetere attraverso l'ago
- Catetere su guida
- Catetere attraverso l'introduttore



DAV neonatale

- Catetere attraverso la vena
- **Catetere su ago**
- Catetere attraverso l'ago
- Catetere su guida
- Catetere attraverso l'introduttore

DAV neonatale

- Catetere attraverso la vena
- Catetere su ago
- **Catetere attraverso l'ago**
- Catetere su guida
- Catetere attraverso l'introduttore



DAV neonatale

- Catetere attraverso la vena
- Catetere su ago
- Catetere attraverso l'ago
- **Catetere su guida**
- Catetere attraverso l'introduttore

DAV neonatale

- Catetere attraverso la vena
- Catetere su ago
- Catetere attraverso l'ago
- Catetere su guida
- **Catetere attraverso l'introduttore**

DAV neonatale

- Catetere attraverso la vena
- Catetere su ago
- Catetere attraverso l'ago
- **Catetere su guida**
- Catetere attraverso l'introduttore

Catetere su guida

- Tecnica
- Materiale
- Indicazioni

Tecnica

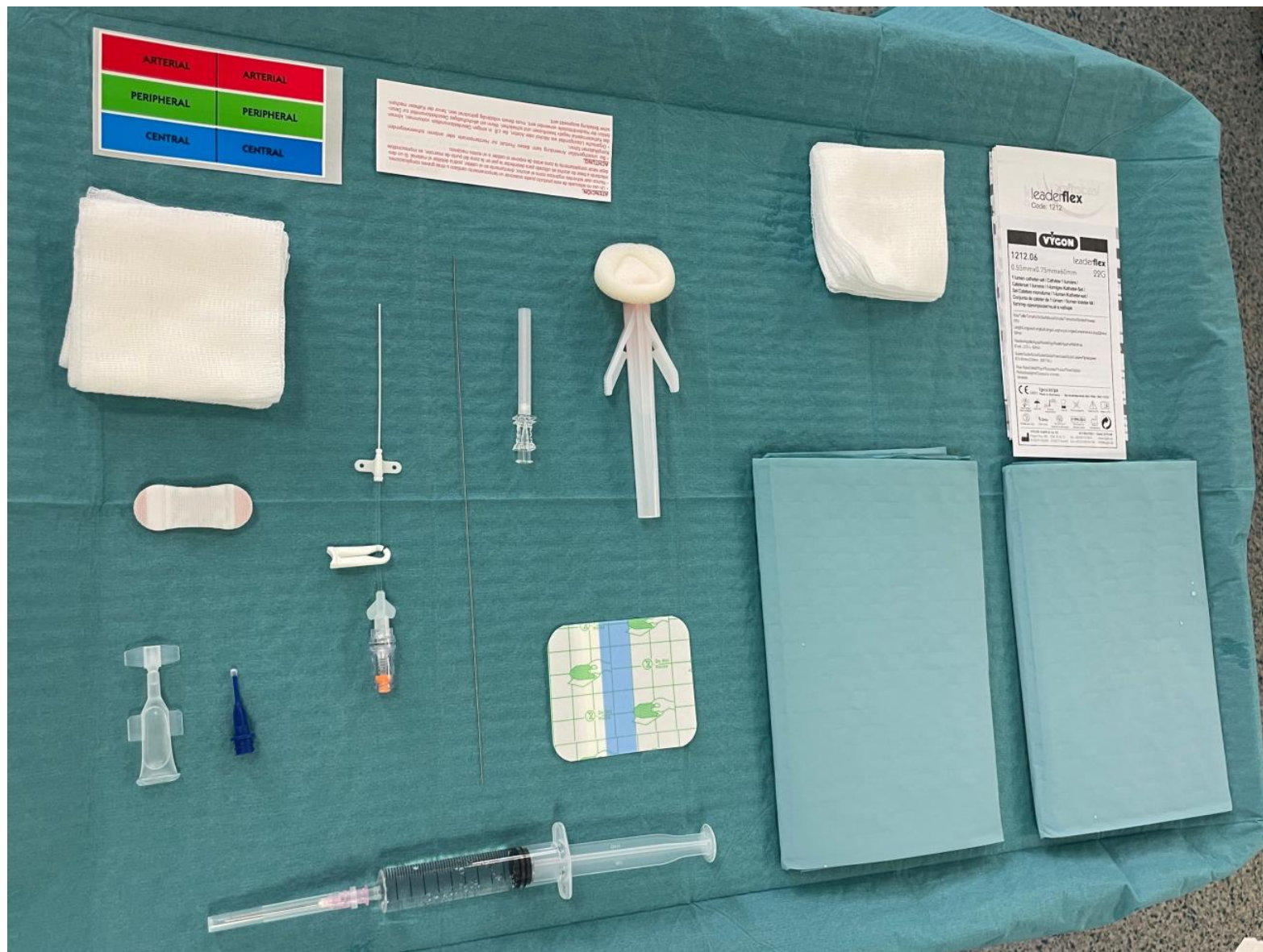
- Vene superficiali (visibili o palpabili o con NIR)
- Vene profonde (ecografia)

Tecnica

- Venipuntura con ago
- Back flow di sangue
- Inserimento della guida metallica attraverso l'ago
- Rimozione dell'ago
- Inserimento del catetere sulla guida metallica
- Rimozione della guida metallica
- Verifica del funzionamento del catetere in aspirazione e infusione
- Medicazione del catetere

CONTENUTO PACK CATETERE





AGO in VENA



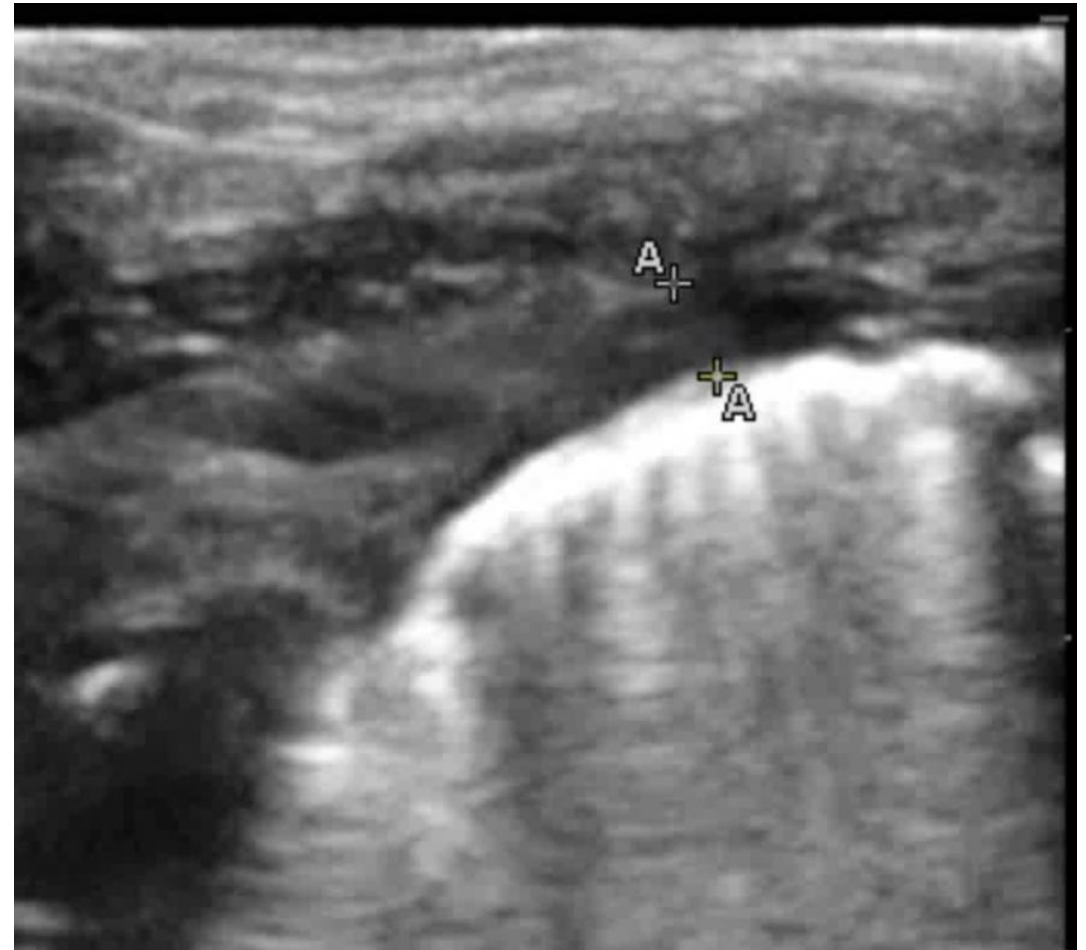
GUIDA in AGO

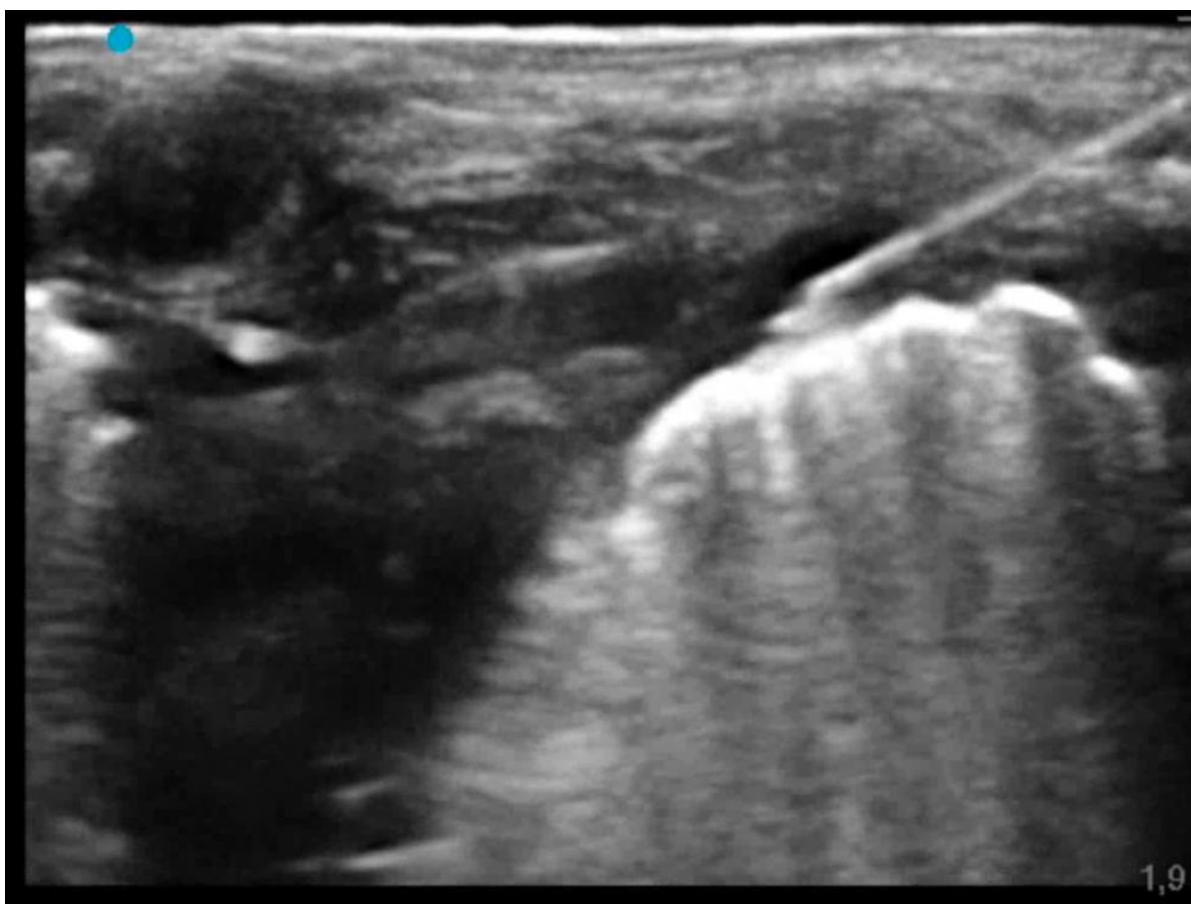


CATETERE su GUIDA

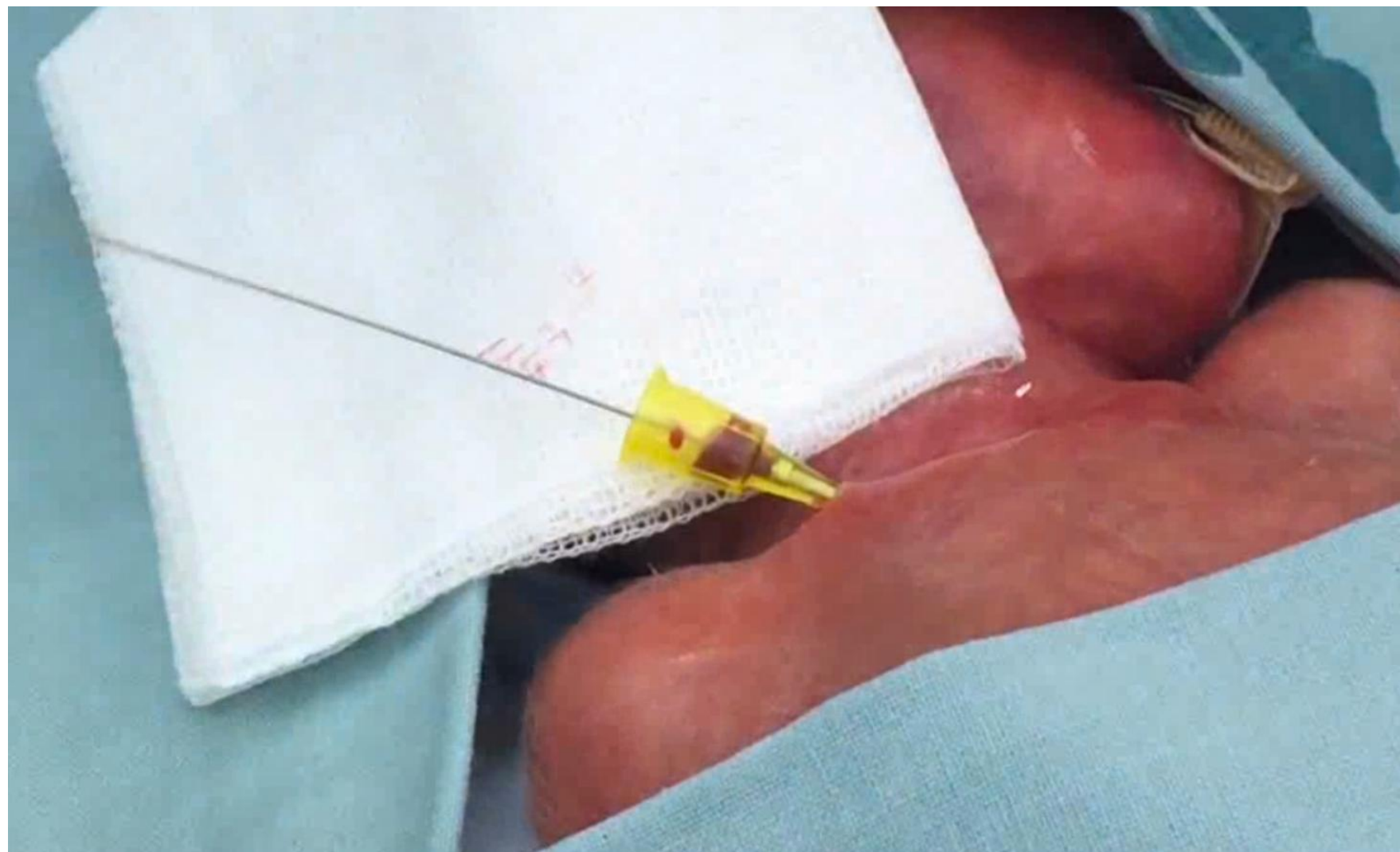


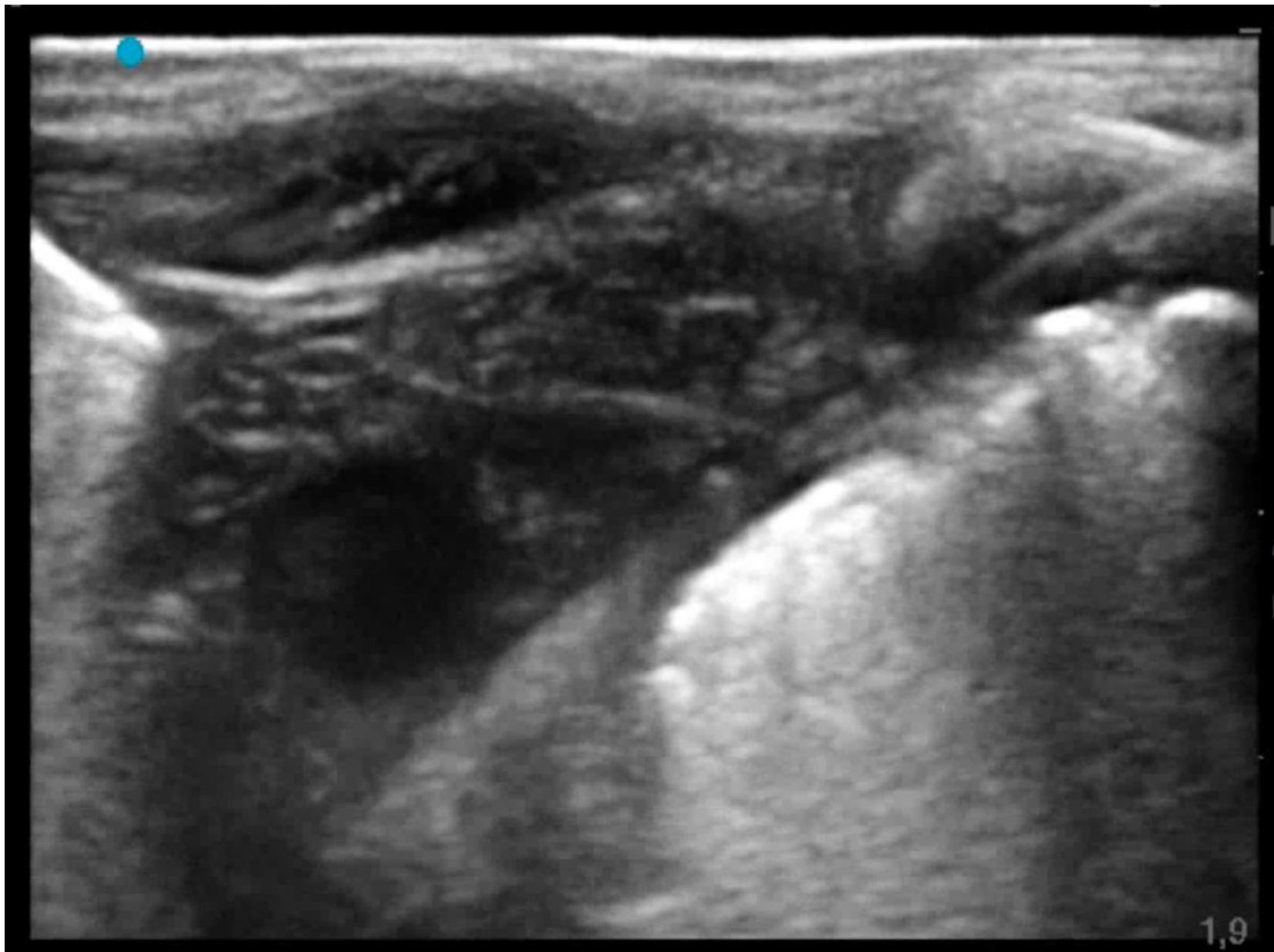












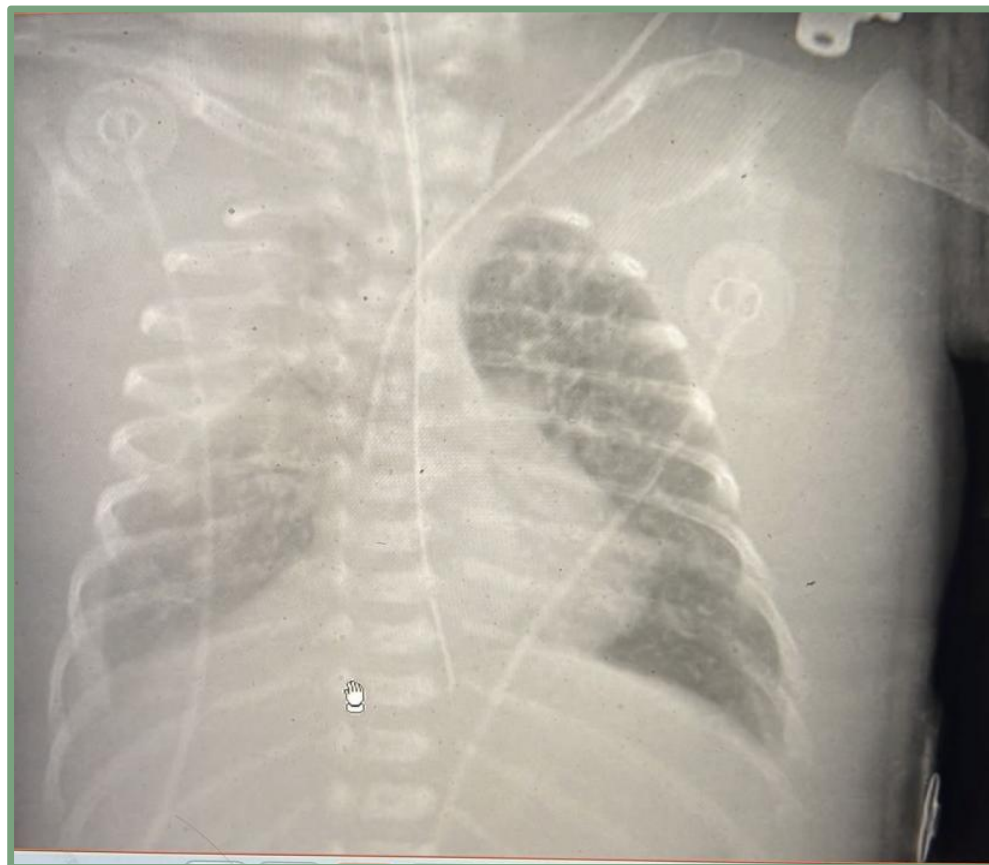
















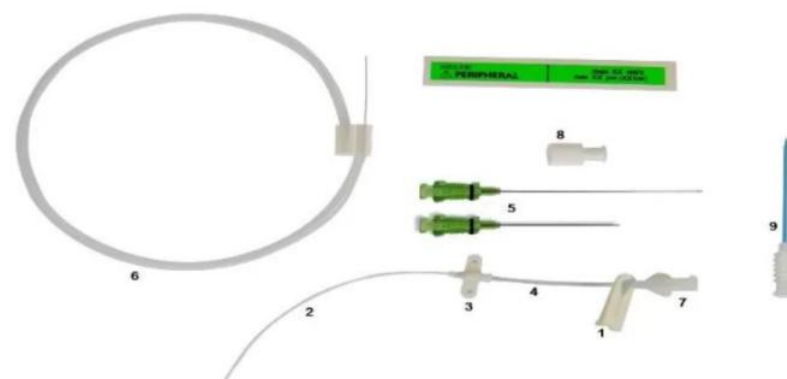
Materiale

Ago o cannula performanti

Micro guide rette con punta morbida

Cateteri di poliuretano di piccolo calibro (2F)

Micro medicazioni



CATETERE (PUR) O.R.X. CT-RATED					
Ø	Infusioni ad alte pressioni Flusso massimo con fluidi di viscosità 11,8 - 1 mPas	Lunghezza cm	Ago cm	Dilatatore	Guida (materiale e lunghezza in cm)
2 Fr	1,5 - 3 ml/s	4 cm	4,2	NO	Acciaio – 23
2 Fr	1,5 - 3 ml/s	6 cm	4,2	NO	Acciaio – 23
2 Fr	1,5 - 3 ml/s	6 cm	4,2	NO	Nitinol – 40 a J
2 Fr	1 - 2 ml/s	8 cm	4,2	NO	Acciaio – 26
2 Fr	1 - 2 ml/s	8 cm	4,2	NO	Nitinol – 40 a J
2 Fr	1 - 2 ml/s	10 cm	4,2	NO	Acciaio – 26
2 Fr	0,5 - 1 ml/s	15 cm	4,2	NO	Acciaio – 40

Indicazioni

Grande spazio alle cannule periferiche lunghe

Cateteri tipo CICC o FICC

Long peripheral catheters in neonates: filling the gap between short peripheral catheters and epicutaneous-caval catheters?

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Maria Grazia Romitti¹, Carmen Rodriguez Perez²,
Elena Pezzotti, Mario Motta³ and Francesco Maria Risso

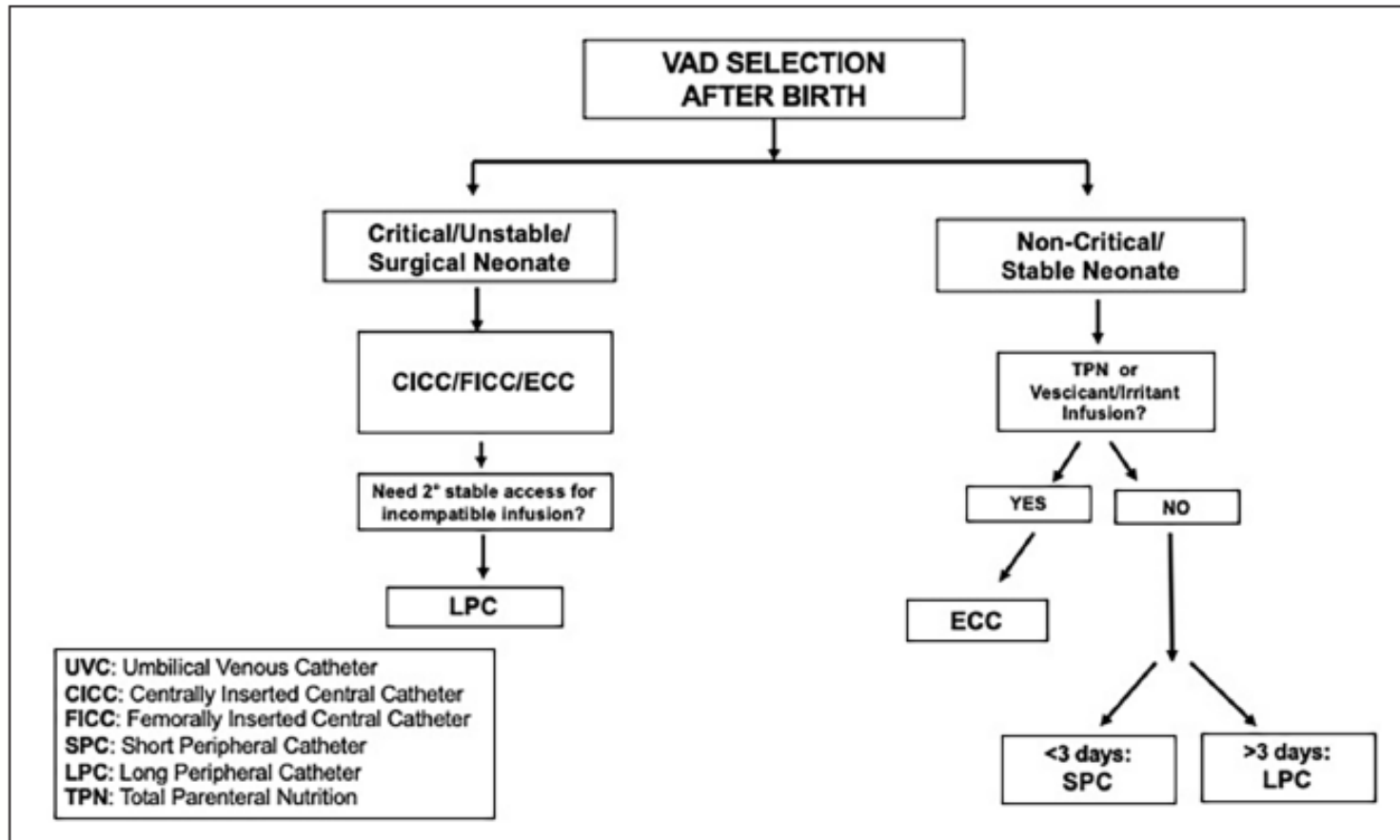
Abstract

Introduction: Non-critically ill neonates at times require venous access to provide peripherally compatible infusions for a limited period (more than 3 days). In such a situation, short peripheral cannulas are not appropriate as their average duration is about 2 days, while—on the other hand—epicutaneous-caval catheters may be too invasive. In these patients, insertion of long peripheral cannulas may be an effective option.

Methods: In this observational retrospective study, we revised all “long” peripheral catheters (4 and 6 cm long) inserted by direct Seldinger technique in our neonatal intensive care unit when peripheral venous access was required for more than 3 days.

Results: We inserted 52 2Fr polyurethane catheters, either 4 cm long ($n=25$) or 6 cm long ($n=27$) in 52 patients. Mean dwelling time was 4.17 days (range 1–12). Most devices were inserted in the cephalic vein ($n=18$, 35%), and the rest in the saphenous vein ($n=11$, 21%) and other superficial veins. There was no significant correlation between the duration of the device and type of infusion ($p=0.40$). The main complications were infiltration ($n=16$, 31%) and phlebitis ($n=8$, 15%). The rate of removal due to complications was significantly higher ($p<0.01$) in neonates with bodyweight <2000 g at the time of insertion.

Conclusion: In our experience, 2Fr 4–6 cm long peripheral catheters may be a valid option for neonates requiring peripherally compatible infusions for more than 3 days. The limits of this study are the necessity of training in the technique of insertion and the small size of our sample. The longest dwell was observed in neonates weighing >2000 g at the time of LPC insertion.



Retrospective evaluation of 599 brachiocephalic vein cannulations in neonates and preterm infants

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Keywords: brachiocephalic vein; central venous catheter; intravenous cannula; neonates; preterm infants; ultrasound

cannula was slightly withdrawn and the cannula fully inserted, and blood aspirated. If blood aspiration was successful, we used the Seldinger technique including insertion of a straight 0.018-in (0.46 mm) Nitinol guide-wire and a 2, 3, or 4 French single- or double-lumen catheter (Vygon GmbH & Co. KG, Aachen,

We analysed 599 brachiocephalic vein cannulations in infants weighing 0.55–3.5 kg (median, 2.8; 95% confidence interval [CI], 2.7–2.8); 60 babies weighed <1.5 kg, of which 26 weighed <1 kg, and 170 babies weighed 1.5–2.5 kg. The right brachiocephalic vein was targeted in 380 (63.4%) patients. The median size of the vein was 3.6 mm (95% CI, 3.5–3.7) range 1.2–5.7 mm. Ultimate cannulation success rate was 97.8%

The median catheter duration was 12 days (95% CI, 10–13), with 15 (2.5%) catheters removed prematurely owing to eight (1.3%) catheter-associated infections, one (0.17%) clinically symptomatic thrombosis, and 8 (1.3%) catheter obstructions. The probability of catheter-associated infection increased significantly with increasing catheter duration, reaching nearly 15% after 3 weeks.



The neonatal DAV-expert algorithm: a GAVeCeLT/GAVePed consensus for the choice of the most appropriate venous access in newborns

Giovanni Barone¹ · Vito D'Andrea² · Gina Ancora¹ · Francesco Cresi³ · Luca Maggio⁴ · Antonella Capasso⁵ · Rossella Mastroianni⁶ · Nicola Pozzi⁷ · Carmen Rodriguez-Perez⁸ · Maria Grazia Romitti⁹ · Francesca Tota¹⁰ · Ferdinando Spagnuolo¹¹ · Francesco Raimondi⁵ · Mauro Pittiruti¹²

Consider the benefit of tunneling all ultrasound-guided CICC/FICC, especially in elective conditions.

Special considerations.

Even though it is always advisable to tunnel the catheter, in some situations, this maneuver can be impractical, for example, because of the limited duration of sedation in extremely low birth weight infants, or because of the difficulty of using the modified Seldinger technique in babies weighing less than 750 g, or because of insufficient training of the operator.

Conclusioni

La tecnica Seldinger può essere applicata

Accesso venoso periferico

aspettative infusionali per più di 3 giorni

Accesso venoso centrale

cateteri temporanei o ponte

neonati con vene di piccole dimensioni

rescue in pazienti con patrimonio venoso scarso

neonati di peso < 750 g per ridurre il rischio procedurale



La tecnica Seldinger può essere applicata

Accesso arterioso periferico

GRACIAS
MUCHO
THANK
YOU