

Innovazione di tecniche e di metodi nell'accesso femorale

Fulvio Pinelli

AOU Careggi, Firenze



L'accesso femorale "tradizionale"

1. Puntura della vena femorale comune all'inguine
 2. Nessuna tip location o post-procedurale della punta tramite RX
 3. Exit site all'inguine o altrove (dopo *tunneling*)
- **Utilizzato principalmente in emergenza o inagibilità SVC**
 - **Ampliamente considerato ad alto rischio di infezione e trombosi**

Il “nuovo” accesso femorale

1. Puntura ecoguidata della vena femorale superficiale
2. Accurata *tip location* intra-procedurale mediante ultrasuoni
3. Exit site a metà coscia

- **Estensione delle indicazioni**
- **Riduzione del rischio di infezione e trombosi**

Il “nuovo” accesso femorale

2023

Editorial

JVA | The Journal of
Vascular Access

Femoral venous access: State of the art and future perspectives

Maria Giuseppina Annetta¹ , **Stefano Elli²** , **Bruno Marche¹**,
Fulvio Pinelli³  and **Mauro Pittiruti¹** 

The Journal of Vascular Access

1–11

© The Author(s) 2023

Article reuse guidelines:

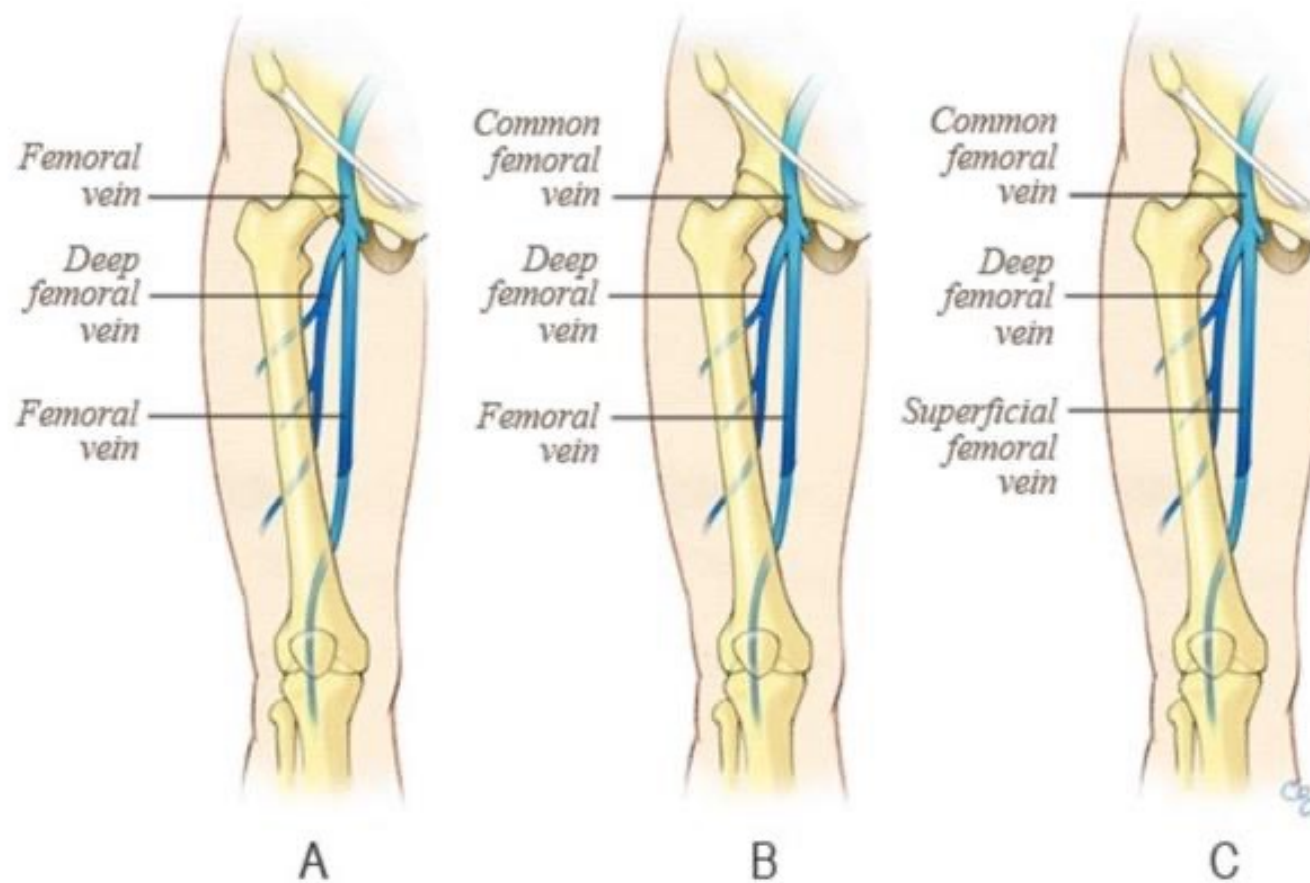
sagepub.com/journals-permissions

DOI: 10.1177/11297298231209253

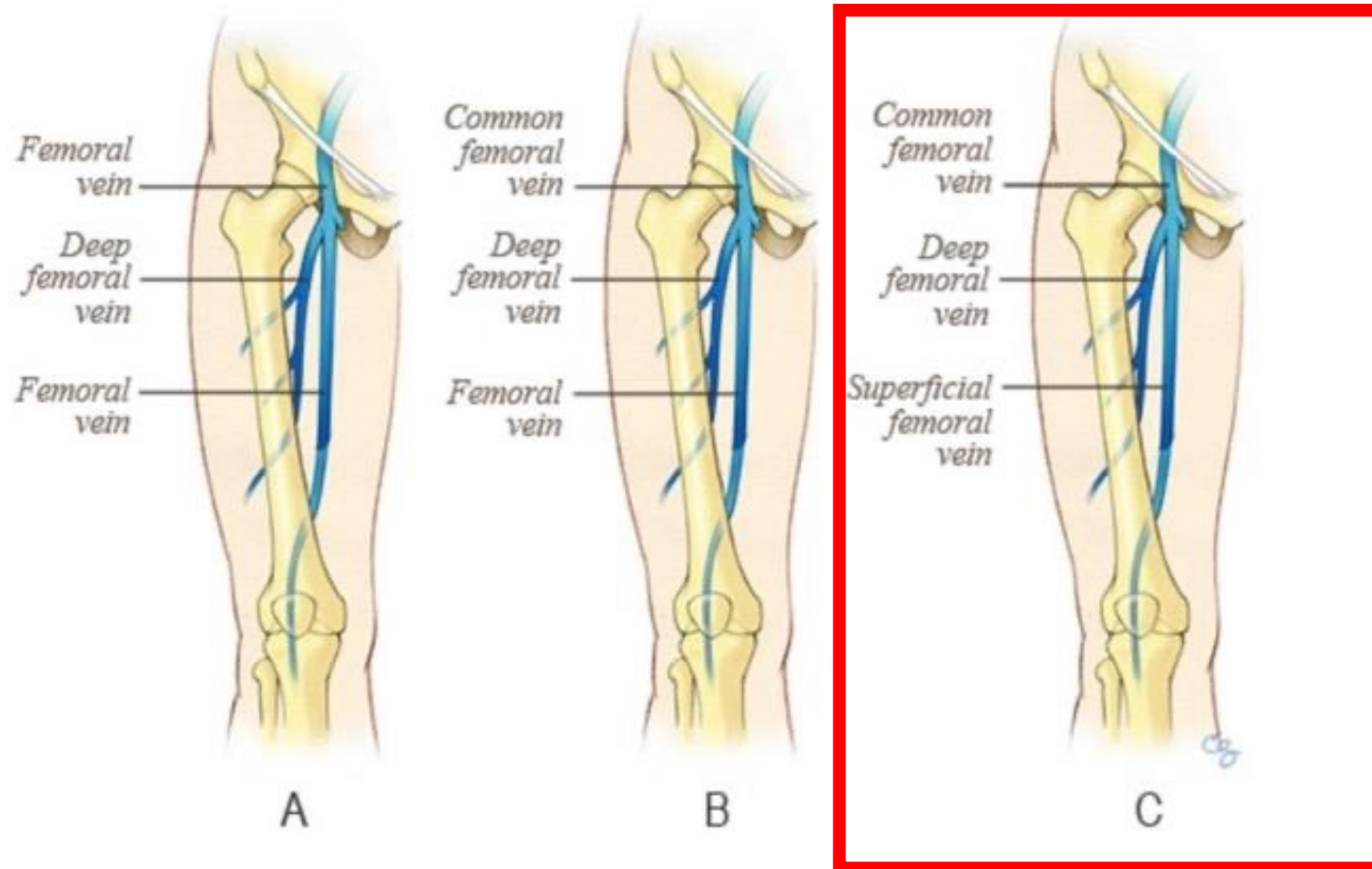
journals.sagepub.com/home/jva

 **Sage**

1. Puntura ecoguidata della VFS



1. Puntura ecoguidata della VFS



1. Puntura ecoguidata della VFS



1. Puntura ecoguidata della VFS

2021

Techniques in vascular access

JVA | The Journal of
Vascular Access

Ultrasound-guided cannulation of the superficial femoral vein for central venous access

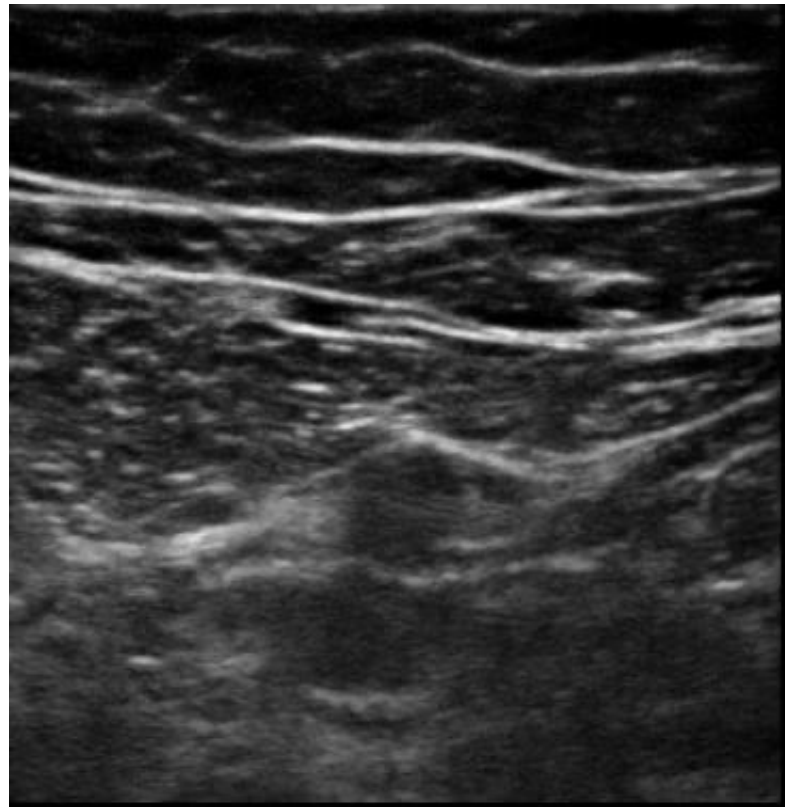
Maria Giuseppina Annetta, Bruno Marche, Laura Dolcetti, Cristina Taraschi, Antonio La Greca, Andrea Musarò, Alessandro Emoli, Giancarlo Scoppettuolo and Mauro Pittiruti 

The Journal of Vascular Access
1–8
© The Author(s) 2021
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/11297298211003745
journals.sagepub.com/home/jva

 SAGE

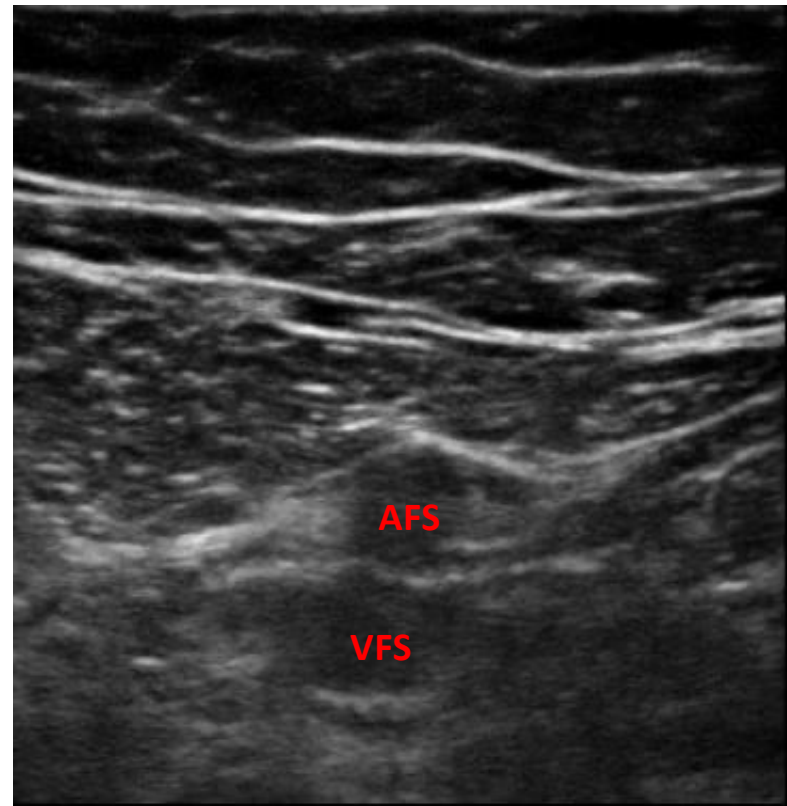
1. Puntura ecoguidata della VFS

Short axis



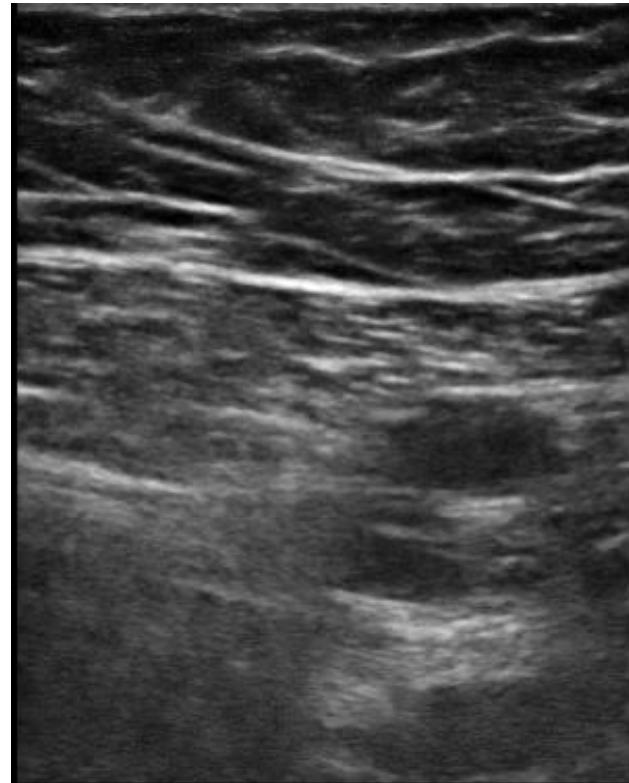
1. Puntura ecoguidata della VFS

Short axis



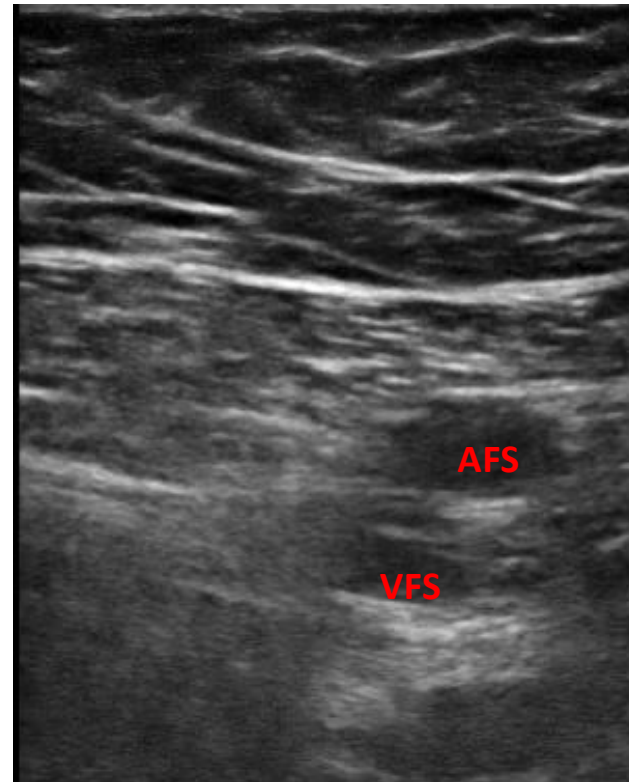
1. Puntura ecoguidata della VFS

Oblique axis



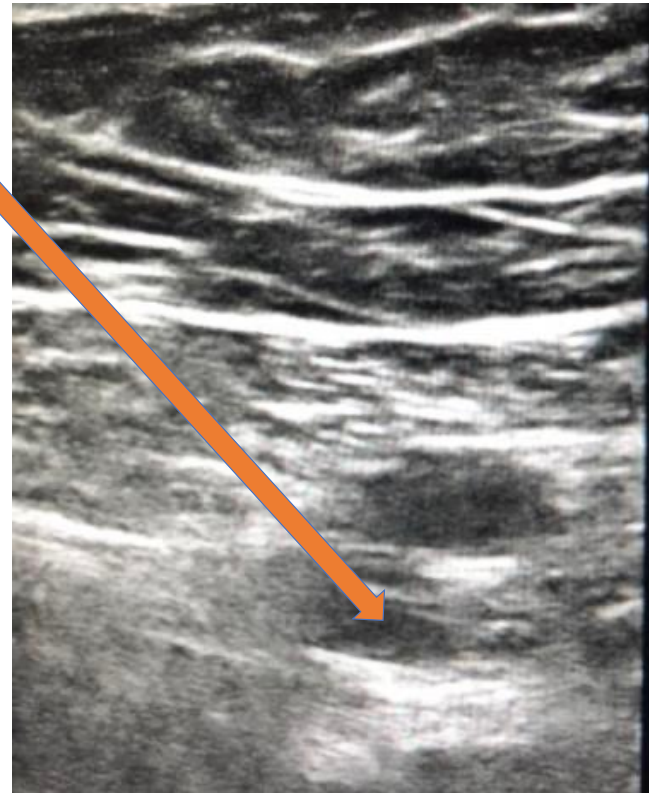
1. Puntura ecoguidata della VFS

Oblique axis

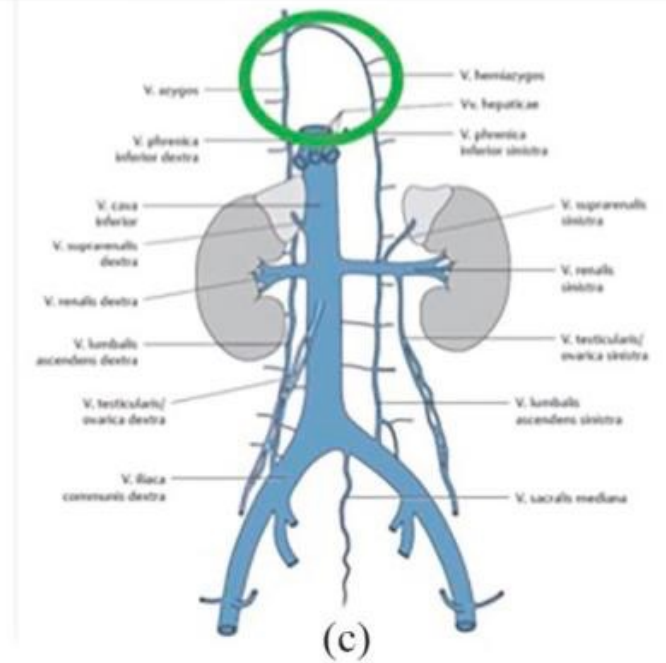
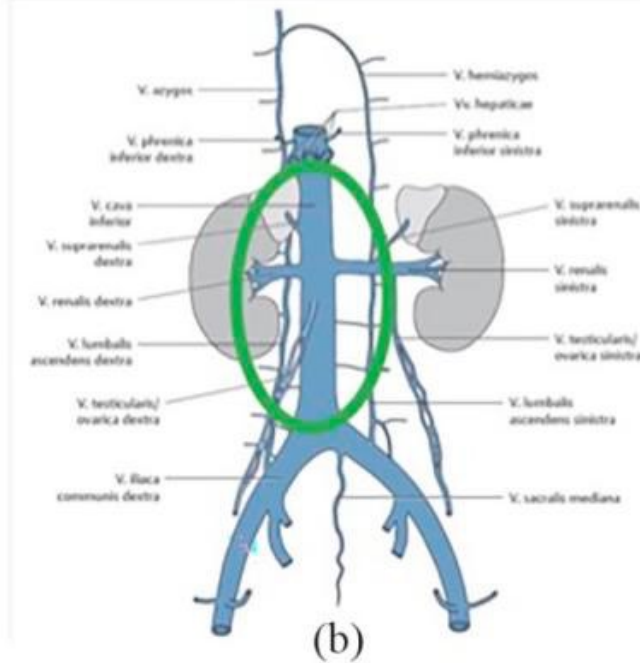
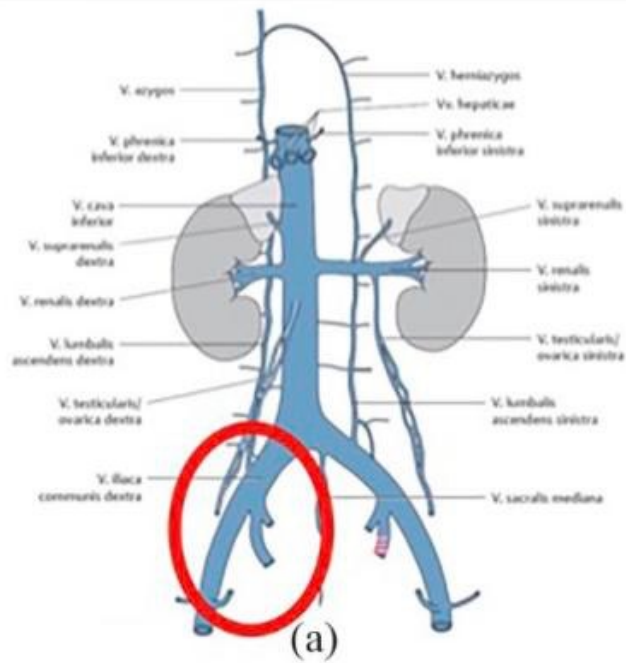


1. Puntura ecoguidata della VFS

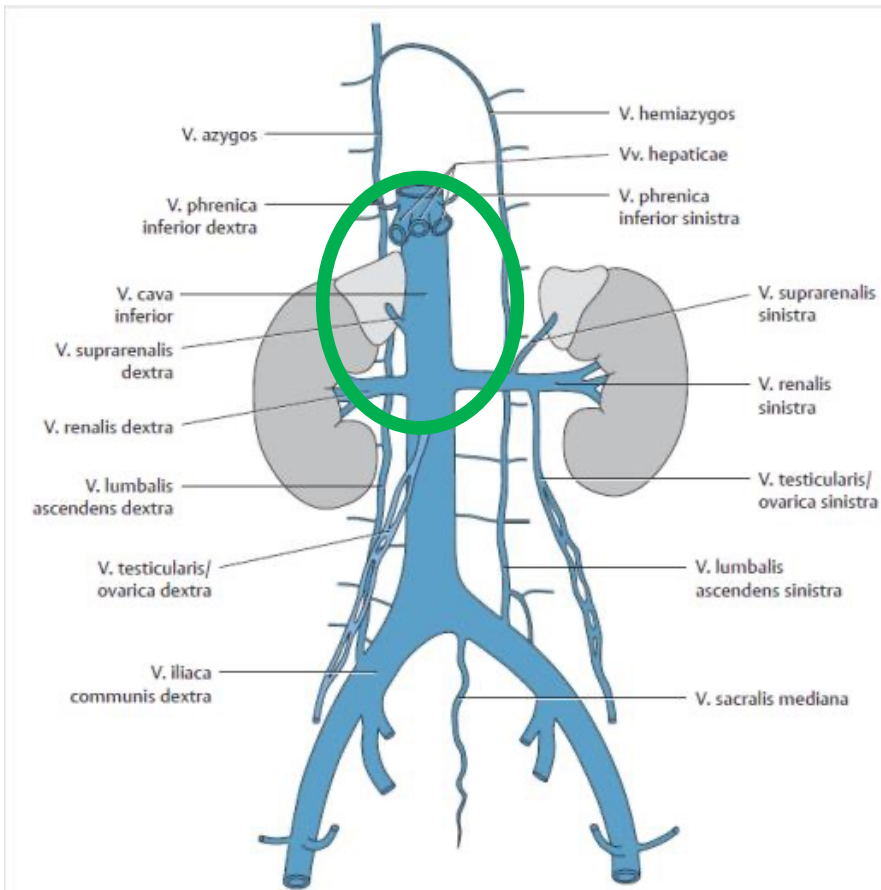
Venipuncture in plane, oblique axis



2. Tip location con US



2. Tip location con US



IVC between the renal veins and the hepatic veins

A tract of IVC that can be easily visualized by ultrasound!

2. Tip location con US

2023

Techniques in vascular access

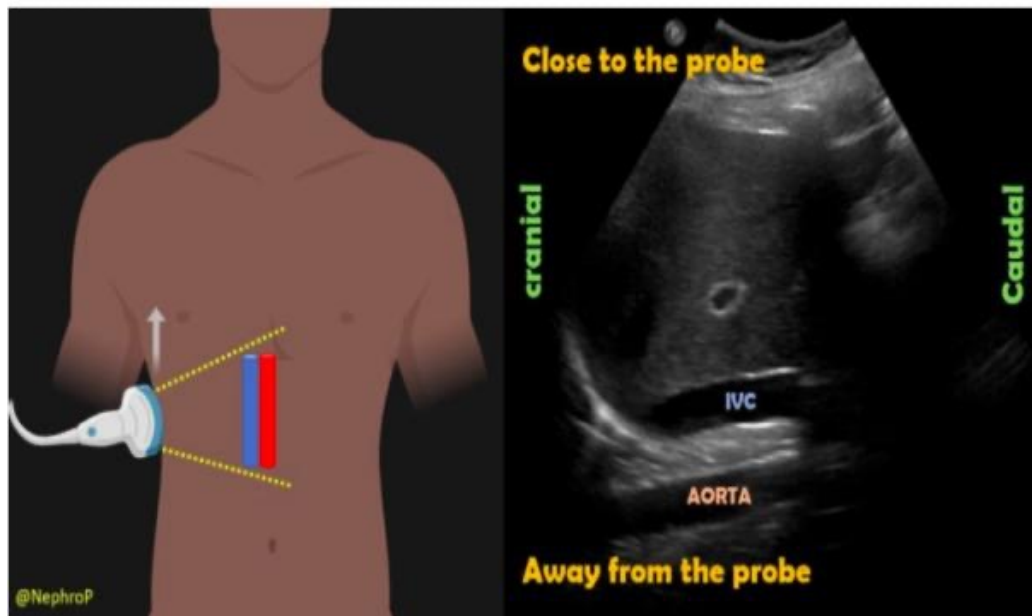
JVA | The Journal of
Vascular Access

Applicability and feasibility of intraprocedural tip location of femorally inserted central catheters by transhepatic ultrasound visualization of the inferior vena cava in adult patients

The Journal of Vascular Access
1–7
© The Author(s) 2023
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/11297298231153979
journals.sagepub.com/home/jva
 SAGE

**Maria Giuseppina Annetta¹ , Bruno Marche¹, Igor Giarretta²
and Mauro Pittiruti¹ **

2. Tip location con US



3. Exit site a metà coscia

Exit site a metà coscia:

- a) sia mediante puntura diretta VFS...
- b) ...o dopo puntura VFC + tunneling (vd. protocollo RAVESTO)

3. Exit site a metà coscia



3. Exit site a metà coscia

Exit site a metà coscia dopo puntura VFC e tunnellizzazione

FICC (puncture at the groin)	Tunnel to the abdomen	Non-emergency line in walking patients with contraindication to PICC/CICC
	Tunnel to mid-thigh	Non-emergency line in bedridden patients with contraindication to PICC/CICC
FICC (puncture at mid-thigh)	Tunnel to the abdomen	Non-emergency line in walking patients with contraindication to PICC/CICC
	Tunnel to distal thigh	Long term intravenous treatment in bedridden patients with contraindication to PICC/CICC

Rapid Assessment of Vascular Exit Site and Tunneling Options (RAVESTO): A new decision tool in the management of the complex vascular access patients

Matthew D Ostroff¹ , Nancy Moureau² and Mauro Pittiruti³ 

JVA 2021

3. Exit site a metà coscia



3. Exit site a metà coscia

Exit site a metà coscia, rispetto al sito di uscita all'inguine:

- **Minor rischio di infezione** (meno contaminazione batterica)
- **Minor rischio di dislocazione** (nessun rischio, utilizzando l'ancoraggio sottocutaneo)
- **Minor rischio di trombosi** (rispettando il rapporto catetere/vena)
- **Minor rischio di occlusione del lume** (nessuna *kinking* del catetere)

Un nuovo mondo di possibilità

Table I. Non-dialysis femoral venous access today.

Patients	Device	Indication	Access	Exit site	Tip location method	Preferred securement method
Neonates	ECC	Short term	Superficial veins of the lower limb	Peripheral sites	Neo-ECHOTIP	Sutureless
	Non-tunneled FICC	Emergency	CFV	Groin	Not required	Sutureless
	Tunneled FICC	Short/long term	CFV	Mid-thigh	Neo-ECHOTIP	Subcutaneous anchorage
Children	Non-tunneled FICC	Emergency	CFV	Groin	ECHOTIP-Ped	Sutureless
	Tunneled FICC	Short/long term	CFV	Mid-thigh	ECHOTIP-Ped	Subcutaneous anchorage
Adults	Peripheral catheter	Short term	Deep veins of the lower limb	Various sites	Not required	Sutureless
	Non-tunneled FICC	Emergency	CFV	Groin	Not required	Sutureless
	Non-tunneled FICC	Short/long term	SFV	Mid-thigh	ECHOTIP/IC-ECG	Subcutaneous anchorage
	Tunneled FICC	Short/long term	CFV or SFV	Mid-thigh	ECHOTIP/IC-ECG	Subcutaneous anchorage
	FICC-port	Long term	CFV or SFV	—	ECHOTIP	—

ECC: epicutaneo-cava catheter; FICC: femorally inserted central catheter; CFV: common femoral vein; SFV: superficial femoral vein.

Neo-ECHOTIP, ECHOTIP-Ped, ECHOTIP, IC-ECG: see explanation in the text.

Short term: <3–4 weeks; long term: >3–4 weeks.

Un nuovo mondo di possibilità

Table 1. Non-dialysis femoral venous access today.

Patients	Device	Indication	Access	Exit site	Tip location method	Preferred securement method
Neonates	ECC	Short term	Superficial veins of the lower limb	Peripheral sites	Neo-ECHOTIP	Sutureless
	Non-tunneled FICC	Emergency	CFV	Groin	Not required	Sutureless
	Tunneled FICC	Short/long term	CFV	Mid-thigh	Neo-ECHOTIP	Subcutaneous anchorage
Children	Non-tunneled FICC	Emergency	CFV	Groin	ECHOTIP-Ped	Sutureless
	Tunneled FICC	Short/long term	CFV	Mid-thigh	ECHOTIP-Ped	Subcutaneous anchorage
Adults	Peripheral catheter	Short term	Deep veins of the lower limb	Various sites	Not required	Sutureless
	Non-tunneled FICC	Emergency	CFV	Groin	Not required	Sutureless
	Non-tunneled FICC	Short/long term	SFV	Mid-thigh	ECHOTIP/IC-ECG	Subcutaneous anchorage
	Tunneled FICC	Short/long term	CFV or SFV	Mid-thigh	ECHOTIP/IC-ECG	Subcutaneous anchorage
	FICC-port	Long term	CFV or SFV	—	ECHOTIP	—

ECC: epicutaneo-cava catheter; FICC: femorally inserted central catheter; CFV: common femoral vein; SFV: superficial femoral vein.

Neo-ECHOTIP, ECHOTIP-Ped, ECHOTIP, IC-ECG: see explanation in the text.

Short term: <3–4 weeks; long term: >3–4 weeks.

Un nuovo mondo di possibilità

2024

Original research article

JVA | The Journal of
Vascular Access

Totally implanted central venous access devices inserted by the femoral route: A narrative review and the proposal of a novel approach, the FICC-port

The Journal of Vascular Access
1–9
© The Author(s) 2024
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/11297298241236816
journals.sagepub.com/home/jva



Maria Giuseppina Annetta¹ , **Bruno Marche²**, **Gloria Ortiz Miluy³**
and **Mauro Pittiruti⁴** 

Grazie per
l'attenzione

pinellif@gmail.com



WoCOVA

