



AUGUST 2 to 4
RIO DE JANEIRO
BRAZIL

Windsor Convention
Center & Hotels
Barra da Tijuca

When peripheral meets structural

**VASCULAR ACCES FOR LARGE BORE
INTRODUCERS and REVIEW ON ARTERIAL
SHEATHS**



CARDIOin

CATETERISMO E CARDIOLOGIA INTERVENCIONISTA

Dr. Guilherme Bernardi

Cardiologista Intervencionista

Hospital Regional do Oeste, Hospital Unimed | Chapecó-SC

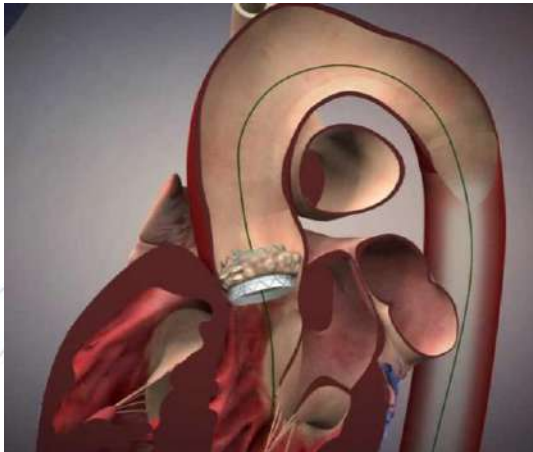


Nenhum conflito de interesse

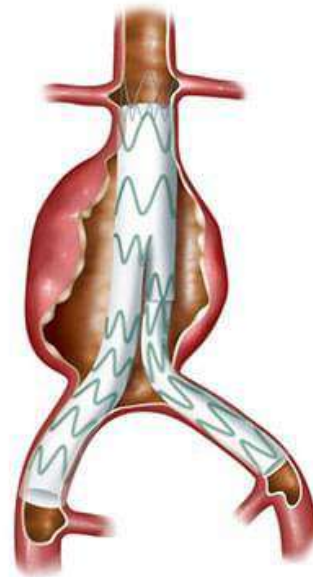


Acesso Arterial de Grande

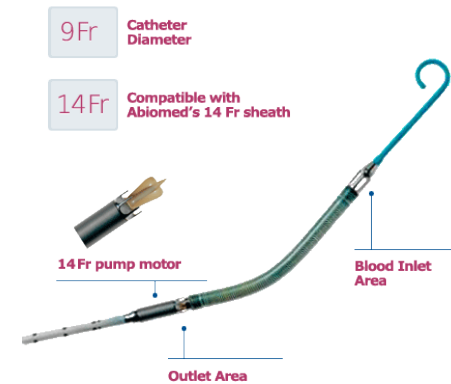
Introdutores ≥ 14 F



TAVI



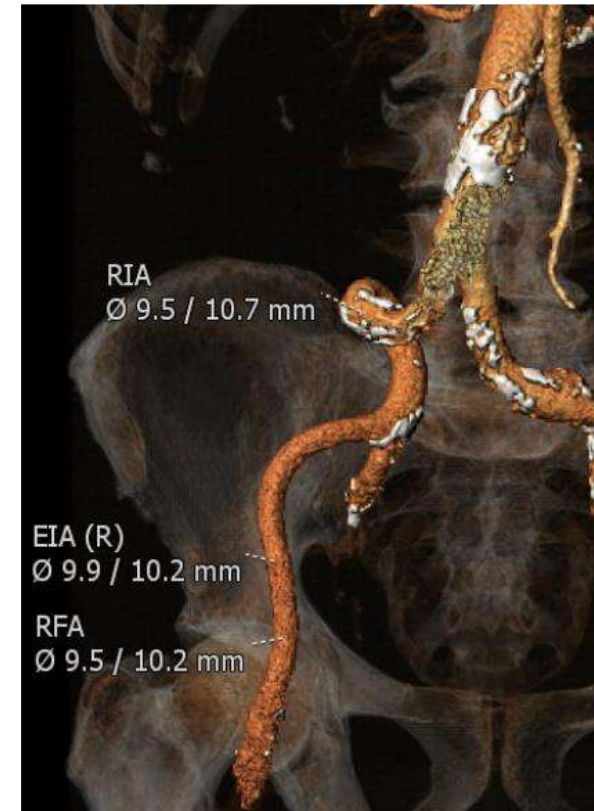
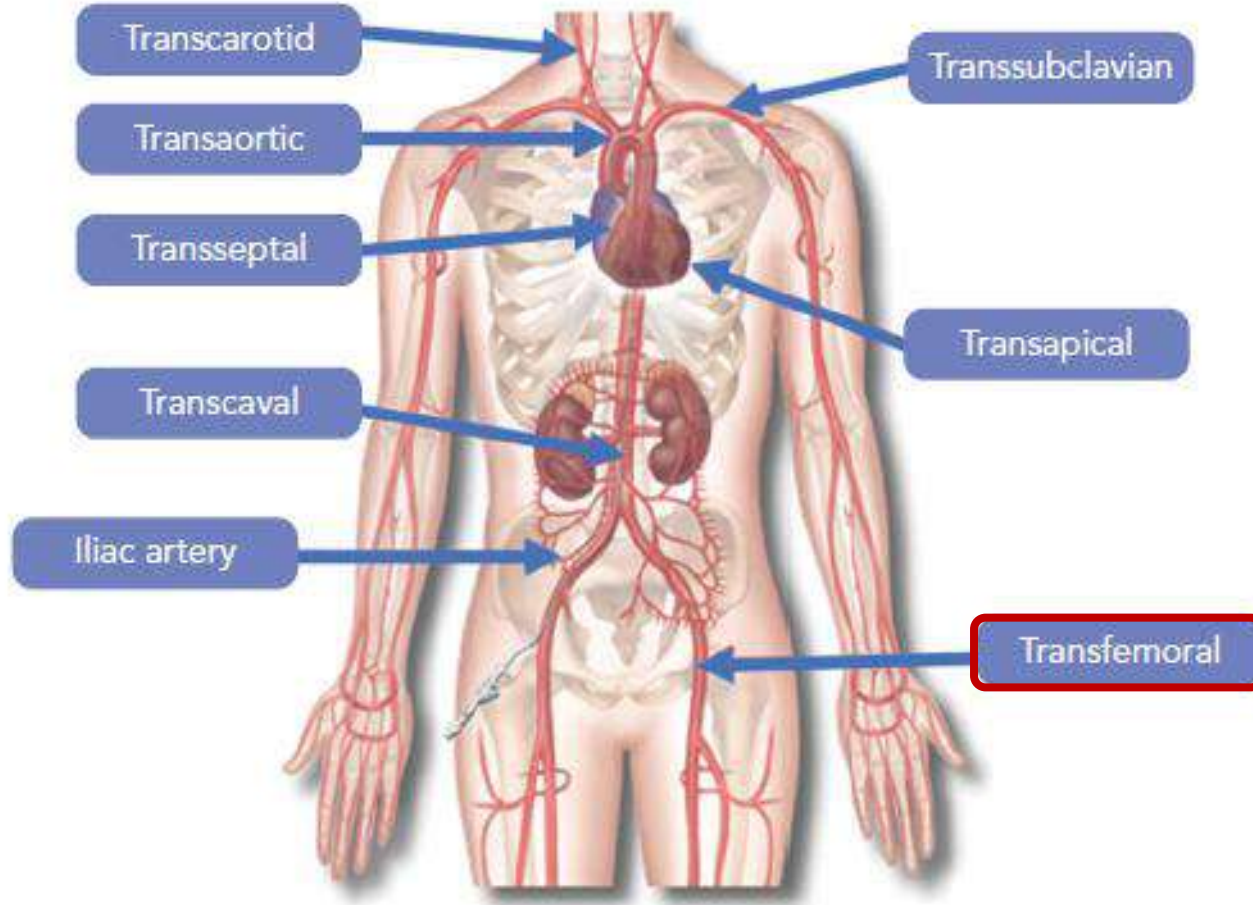
EVAR



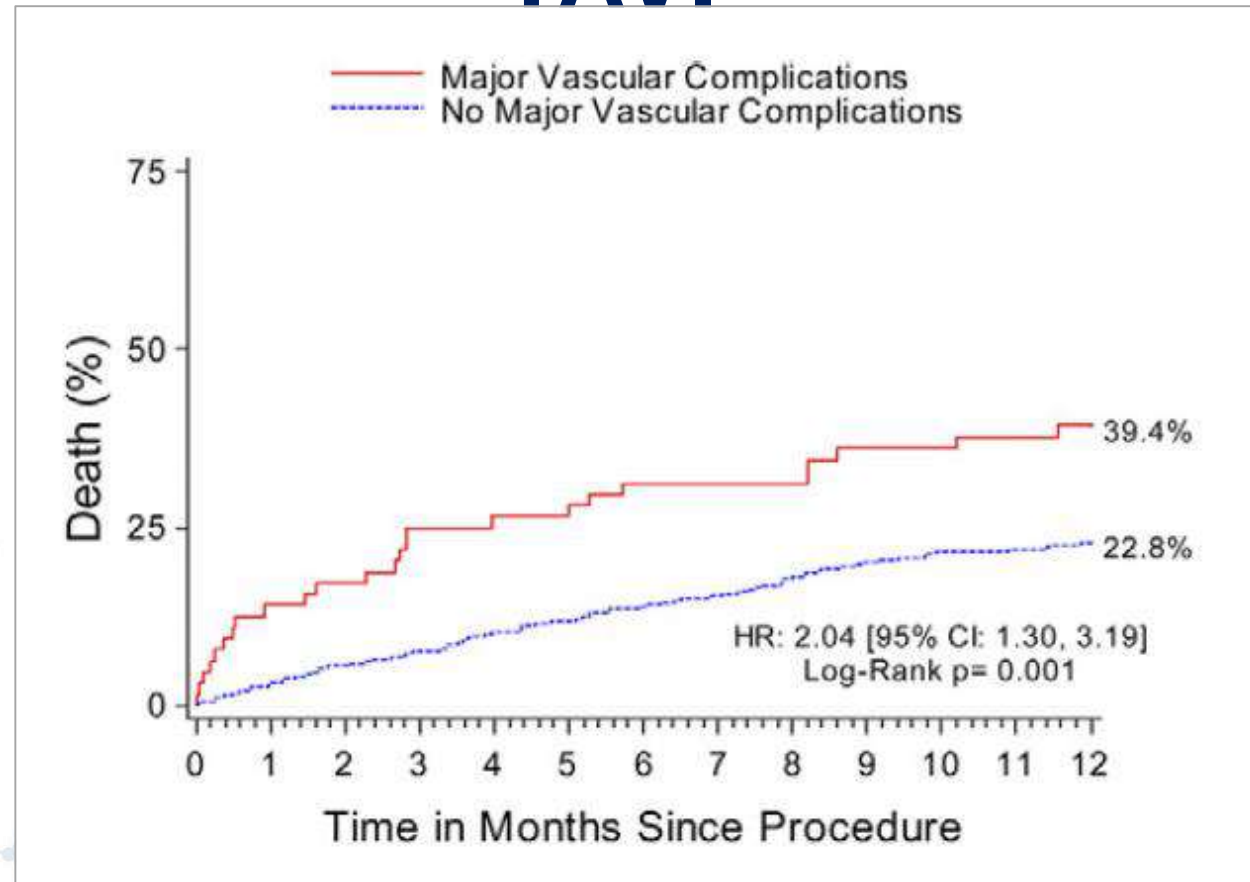
IMPELLA

Opções de Acessos

Introdutores ≥ 14 F



Complicação Vascular - TAVI



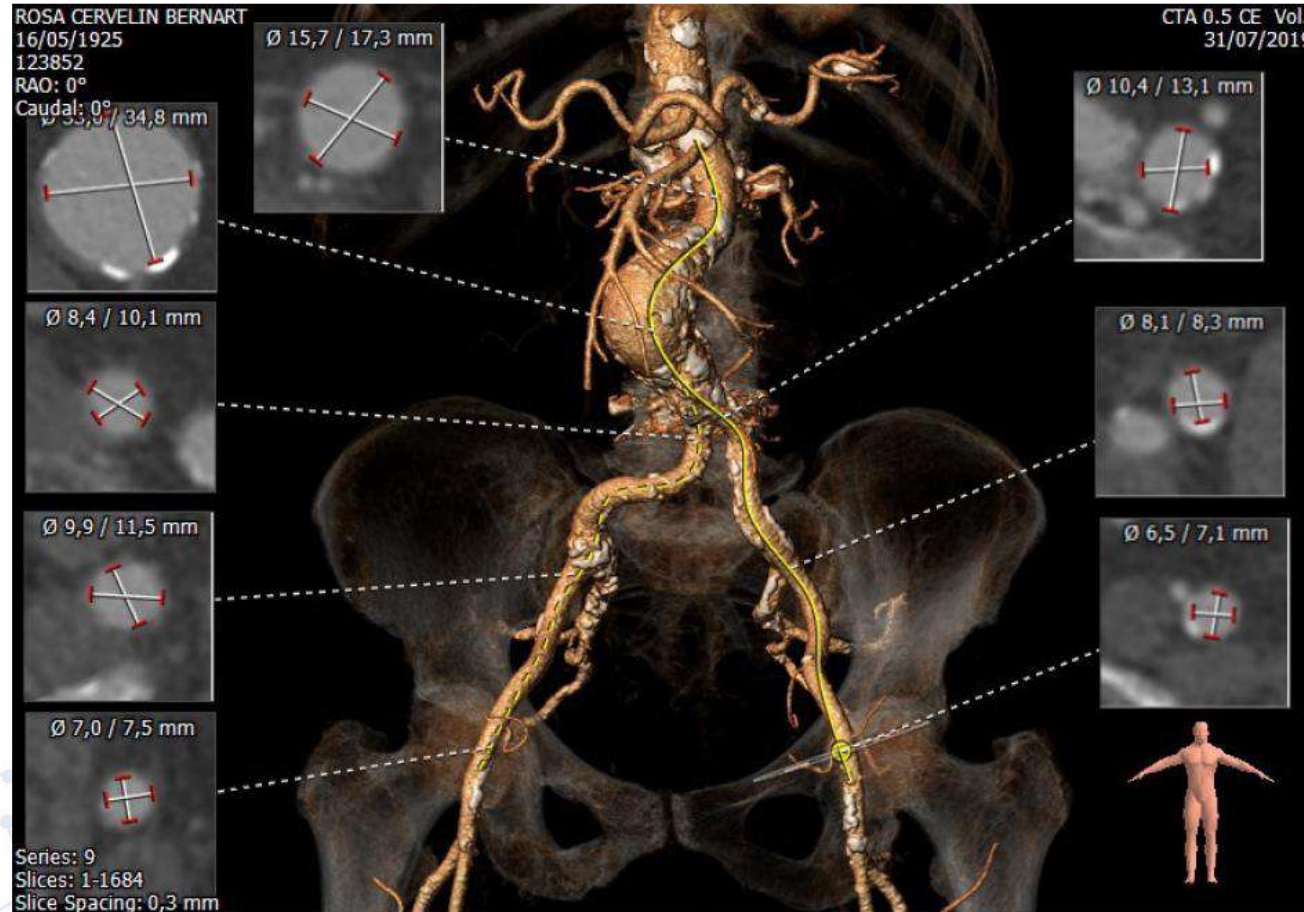
Généroux et al. Vascular Complication After TAVR, JACC. 2012

Acesso Transfemoral

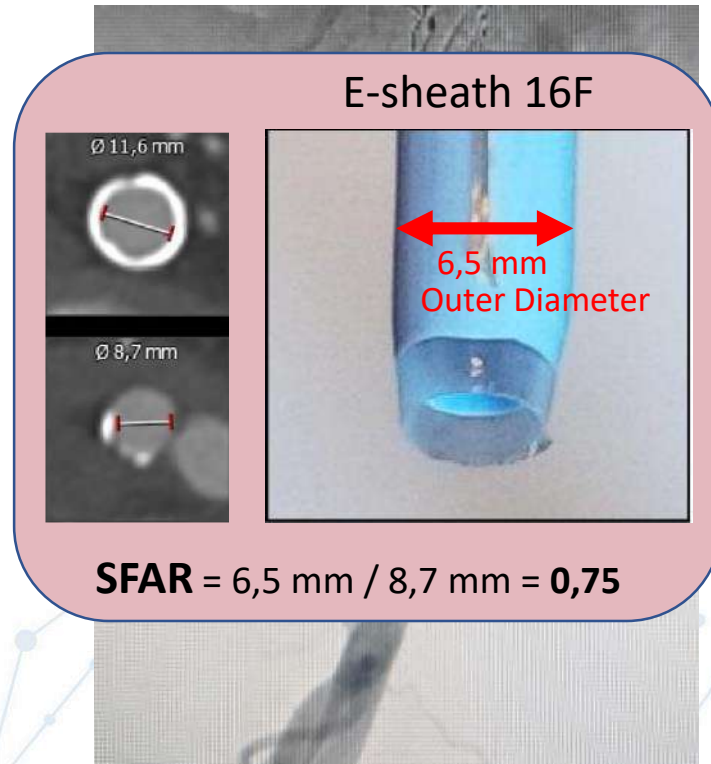
1. Quando evitar a via transfemoral
2. Tipo de acesso: Percutâneo vs. Cirúrgico
3. Técnicas Percutâneas
4. Tratamento Percutâneo das Complicações



Planejamento pré-procedimento



1º Passo: Quando evitar a via transfemoral



Preditores de Complicação Maior

SFAR > 1.05

Calcificação severa

Tortuosidade acentuada

Doença arterial periférica

Baixa experiência do centro

Sexo feminino

Hayashida et al. JACC: Cardiovascular Interv, 2011

Toggweiler et al. JACC, 2012

Généroux et al. JACC, 2012

Introdutores – TAVI 14-16F

Integrated

14-16F



Medtronic InLine Sheath

14-15F



Abbott FlexNav

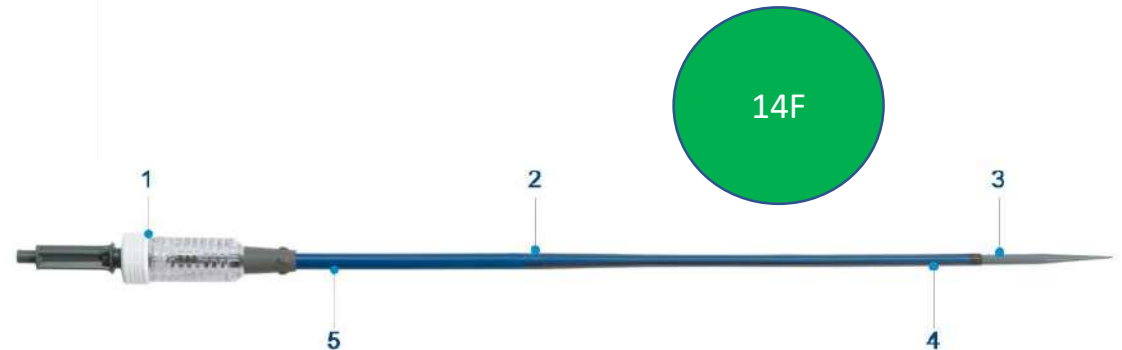
Dynamic Expansion Mechanism

14F



Edwards E-Sheath

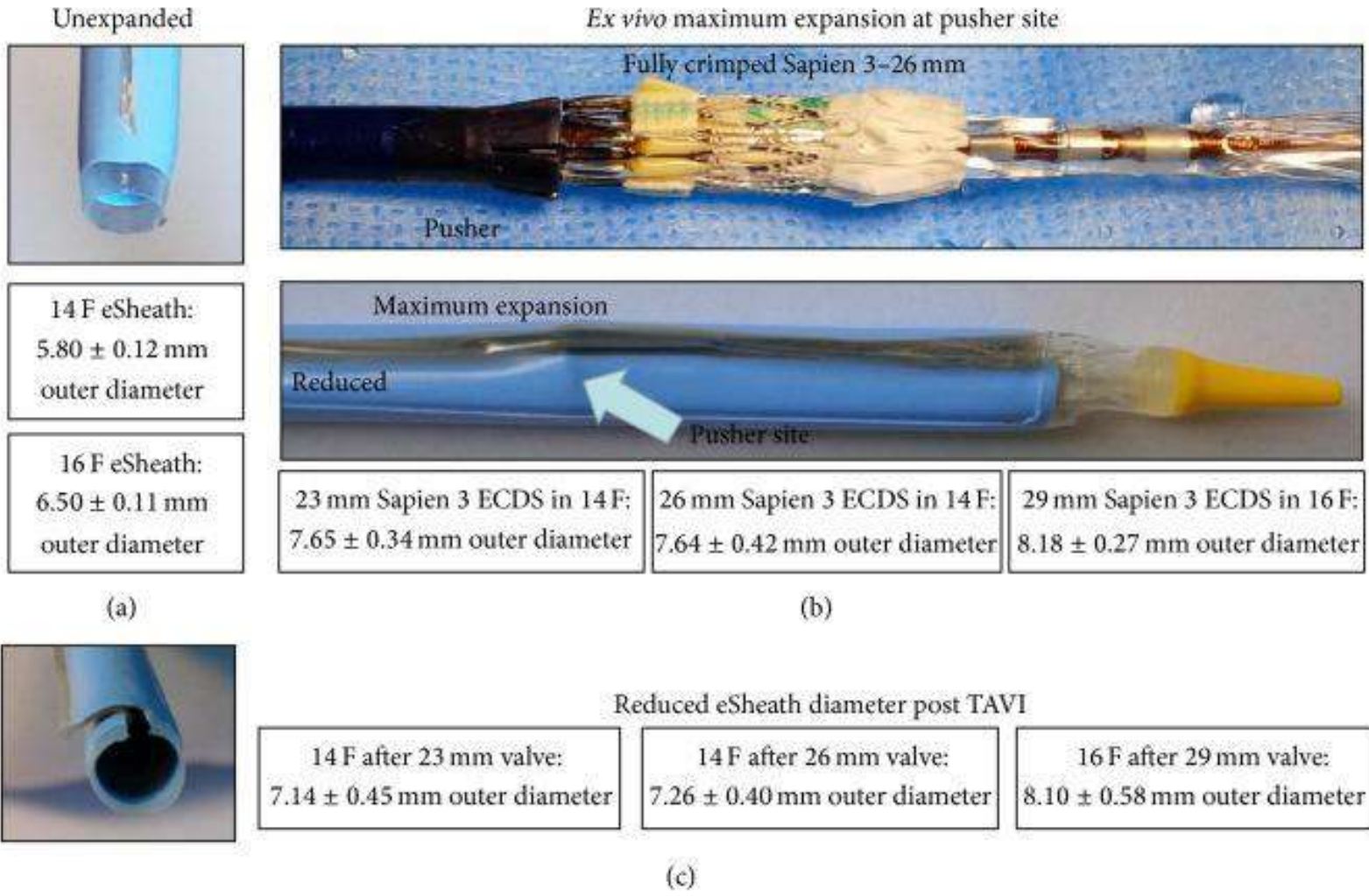
14F



Boston i Sleeve

TAVI Delivery Systems - Outer Diameters

Evolut R	23	26	29	34
EnVeo PRO delivery system	6mm	6mm	6mm	6,7mm
Evolut Pro	23	26	29	
EnVeo PRO delivery system	6,7mm	6,7mm	6,7mm	
Sapien S3	20	23	26	29
Commander Delivery System with eSheath	5,8mm	5,8mm	5,8mm	6,5mm
Acurate Neo 2	S	M	L	
14F iSLEEVE	6mm	6mm	6mm	
Portico	23	25	27	29
FlexNav Delivery System	6mm	6mm	6,3mm	6,3mm



Koehler T, Buege M, Schleiting H, et al. Changes of the eSheath Outer Dimensions Used for Transfemoral Transcatheter Aortic Valve Replacement. Biomed Research International. 2015 ;2015:572681.

TAVI Delivery Systems - Outer Diameters

Evolut R 23 26 29 34

EnVeo PRO delivery system 6mm 6mm 6mm 6,7mm

Evolut Pro 23 26 29

EnVeo PRO delivery system 6,7mm 6,7mm 6,7mm

Sapien S3 20 23 26 29

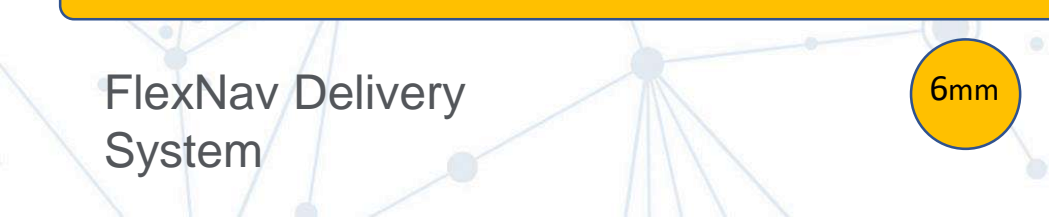
Commander Delivery System with eSheath 5,8mm ? 5,8mm 7,6mm 5,8mm 7,6mm 6,5mm 8,2mm

Acurate Neo 2 S M L

14F iSLEEVE 6mm ? 6mm ? 6mm ?

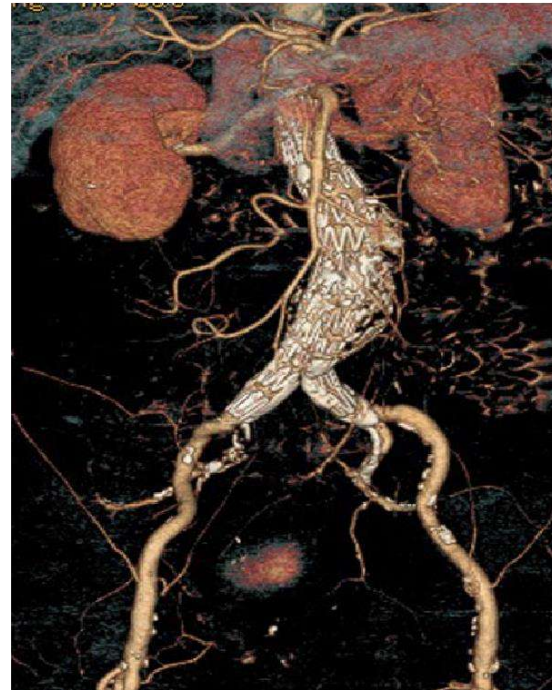
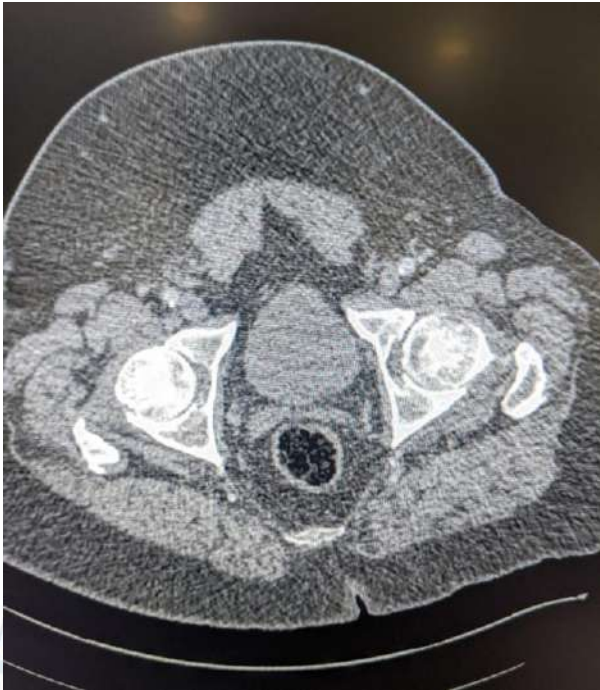
Portico 23 25 27 29

FlexNav Delivery System 6mm 6mm 6,3mm 6,3mm



1ª Etapa: Quando evitar a via transfemoral

Outras situações a evitar a via TF

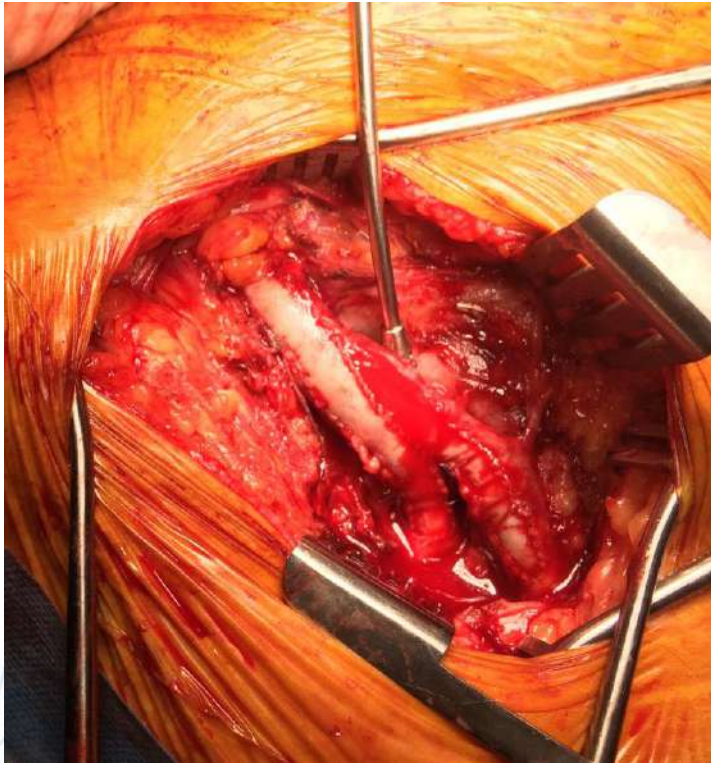


Acesso Transfemoral

1. Quando evitar a via transfemoral
2. Tipo de acesso: Percutâneo vs. Cirúrgico
3. Técnicas Percutâneas de Hemostasia e Proteção
4. Tratamento Percutâneo das Complicações



Cirúrgico ou Percutâneo



VALVULAR AND STRUCTURAL HEART DISEASES

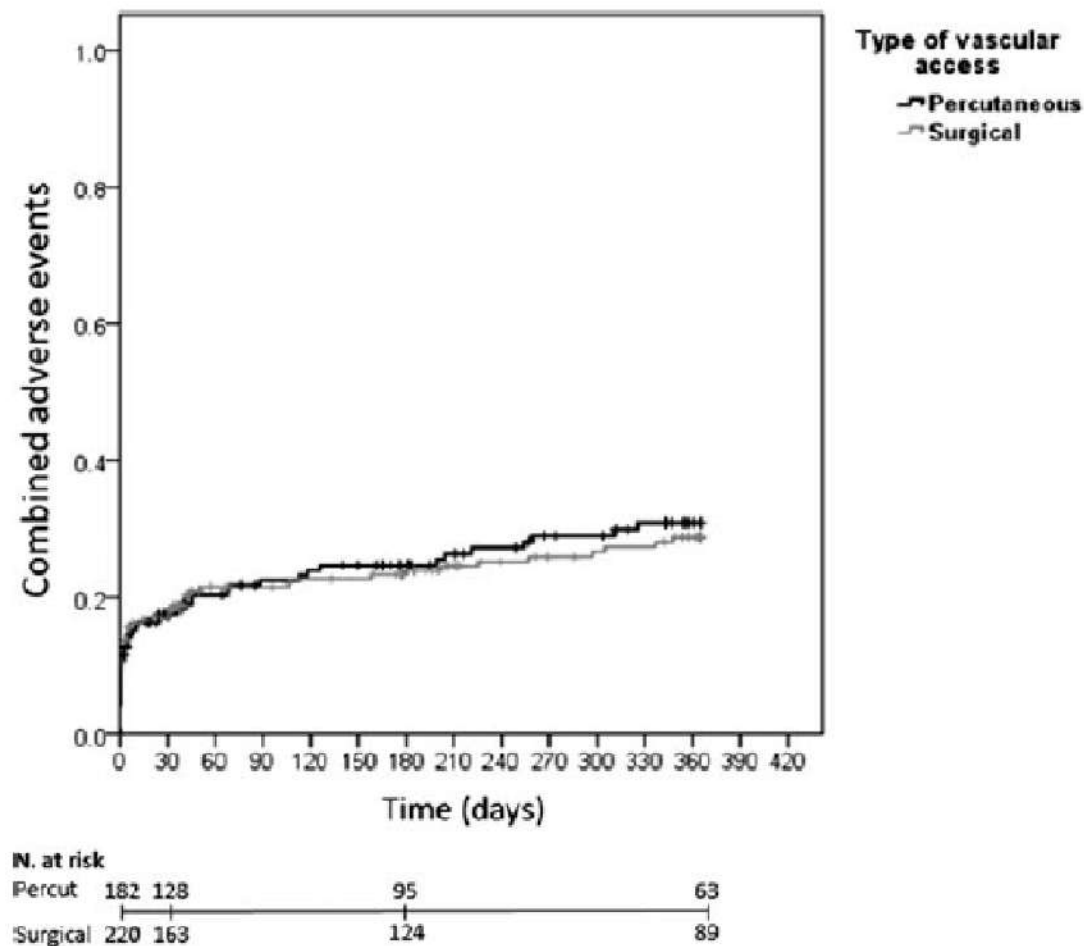
Original Studies

Surgical Cutdown Versus Percutaneous Access in Transfemoral Transcatheter Aortic Valve Implantation: Insights From the Brazilian TAVI Registry

Fernando L.M. Bernardi,¹ MD, Wilton F. Gomes,¹ MD, Fabio S. de Brito Jr,² MD, PhD,
Jose A. Mangione,³ MD, PhD, Rogério Sarmiento-Leite,⁴ MD, PhD, Dimitry Siqueira,⁵ MD, PhD,
Luiz A. Carvalho,⁶ MD, Rogério Tumelero,⁷ MD,
Enio E. Guerios,⁸ MD, PhD, and Pedro A. Lemos,^{1*} MD, PhD

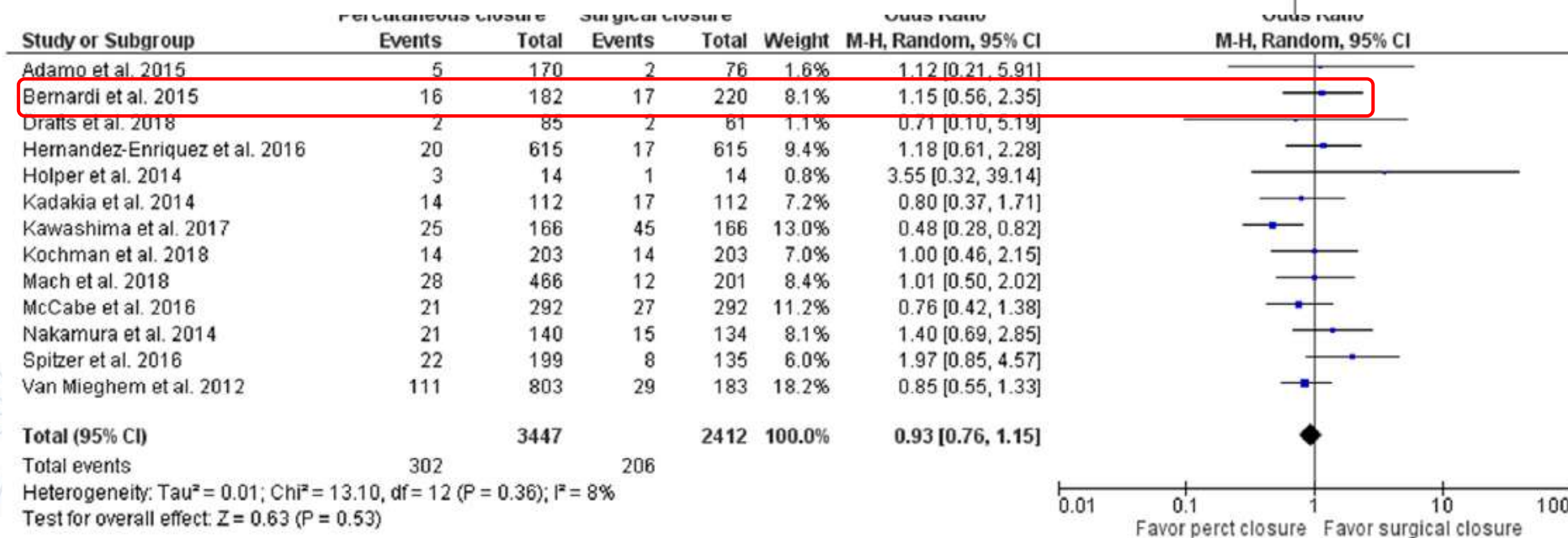
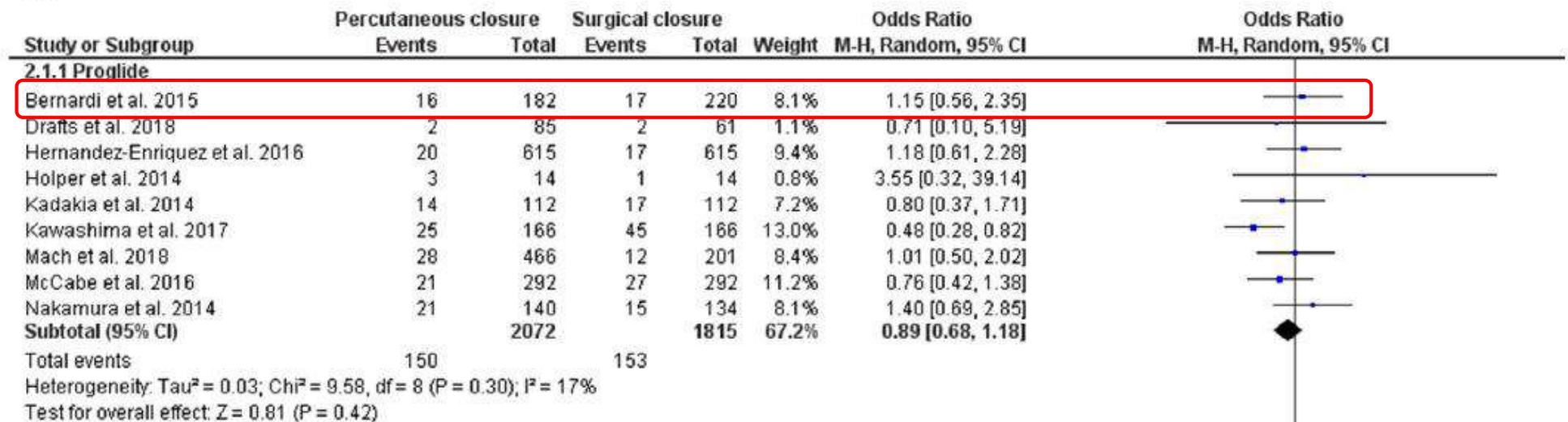
TABLE III. Kaplan–Meier Probabilities of Short- and Long-Term Clinical Outcomes

	Percutaneous approach (182 patients)	Surgical approach (220 patients)	<i>P</i> values
At 30 days			
All-cause death	8.8	8.6	>0.9
Cardiovascular death	6.6	8.2	0.6
Stroke	4.0	3.3	0.7
Bleeding complications			
Life-threatening	8.3	6.6	0.5
Major	5.5	7.4	0.4
Vascular complications			
Major	9.1	7.8	0.7
Minor	7.0	4.3	0.3
Acute kidney injury			
Stage 2	0	2.6	0.04
Stage 3	5.5	5.6	>0.9
Coronary obstruction	1.1	0	0.1
Valve-related repeat procedure	4.9	6.4	0.5
At 1 year			
All-cause death	22.4	20.4	0.7
Cardiovascular death	13.1	16.0	0.2
Stroke	4.9	8.2	0.4
Bleeding complications			
Life-threatening	10.4	8.3	0.5
Major	5.5	8.7	0.3
Vascular complications			
Major	9.1	8.5	0.8
Minor	7.0	4.3	0.3
Coronary obstruction	1.1	0	0.1
Valve-related repeat procedure	4.9	6.4	0.5
Combined primary endpoint ^a	30.9	28.8	0.8



Bernardi et al. 2015

A

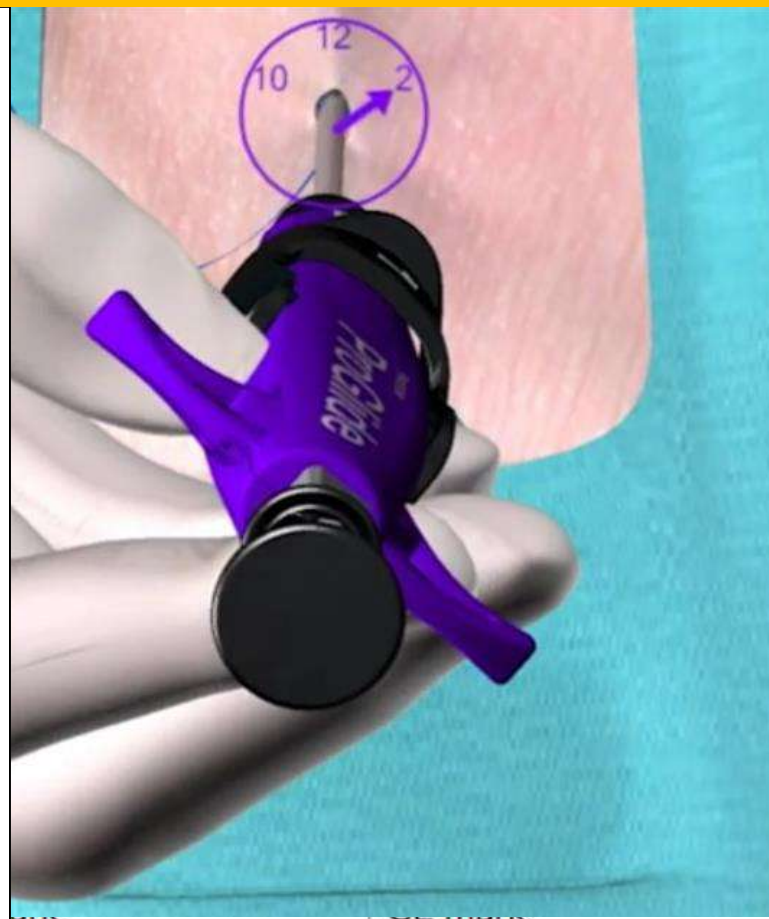
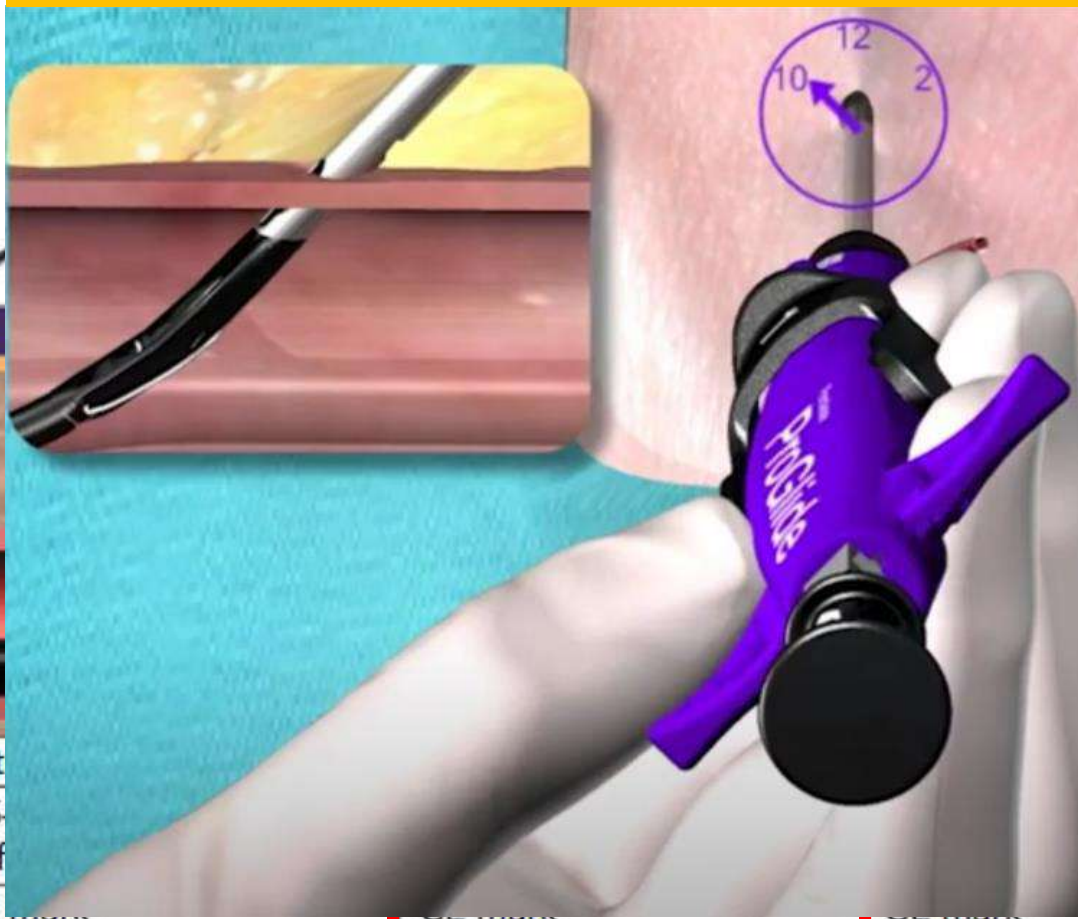


Acesso Transfemoral

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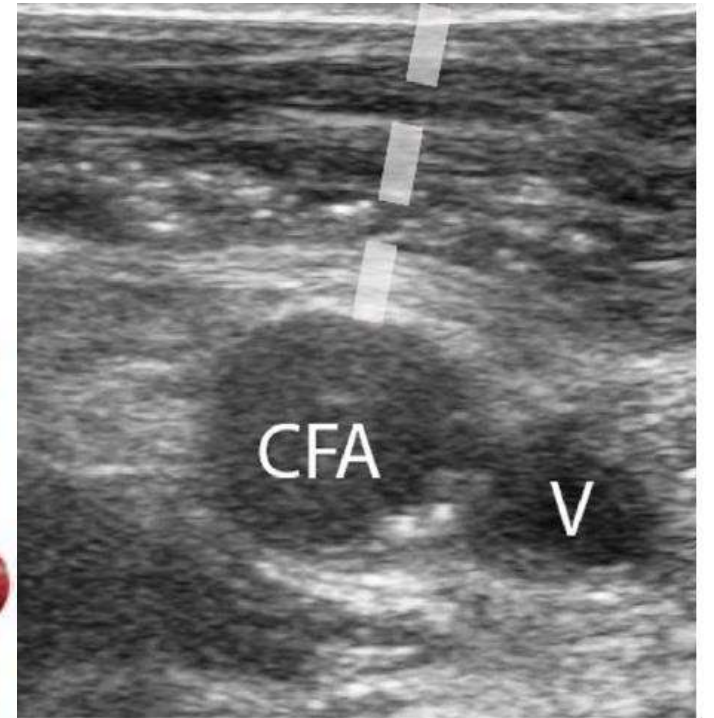
Técnica de Pré-Fechamento



Sut
8.5
(off
CE mark

Source: Abbott Vascular, Essential Medical, inSeal Medical and Vivasure Medical.

Punção Perfeita da Artéria Femoral Comum



Seto et al. JACC Cardiovascular Interventions, 2010

Expertise em Acesso Femoral US-guiado

Artéria e veia femoral

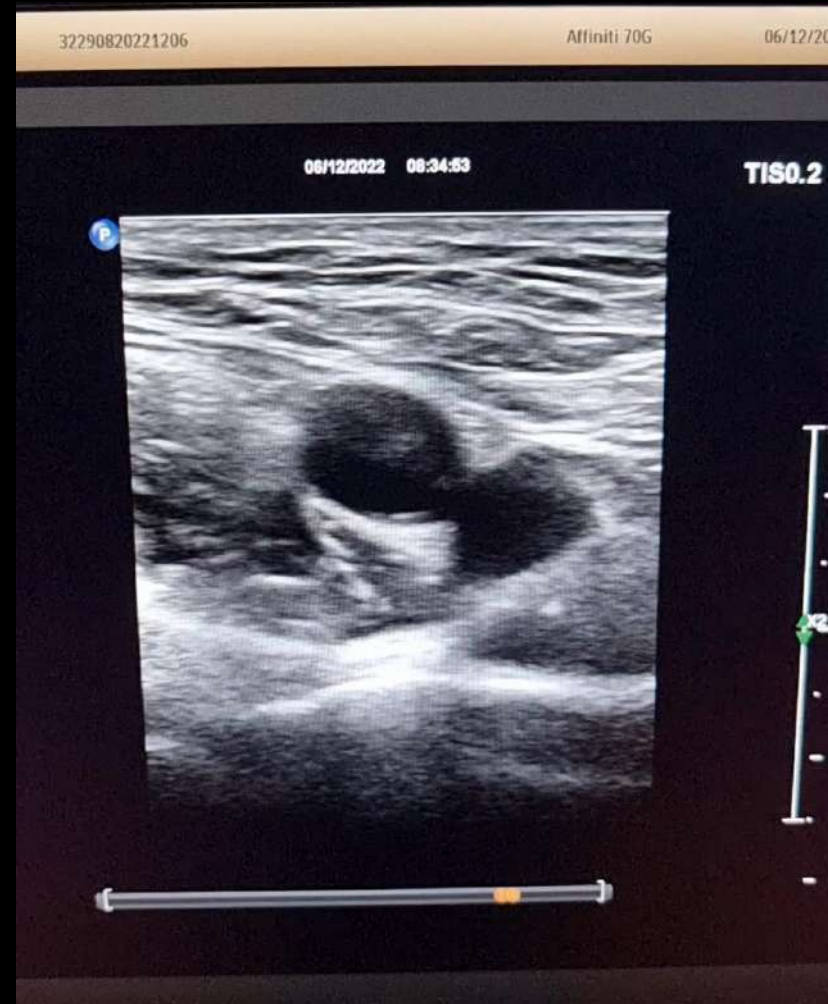
Bifurcação de AFC

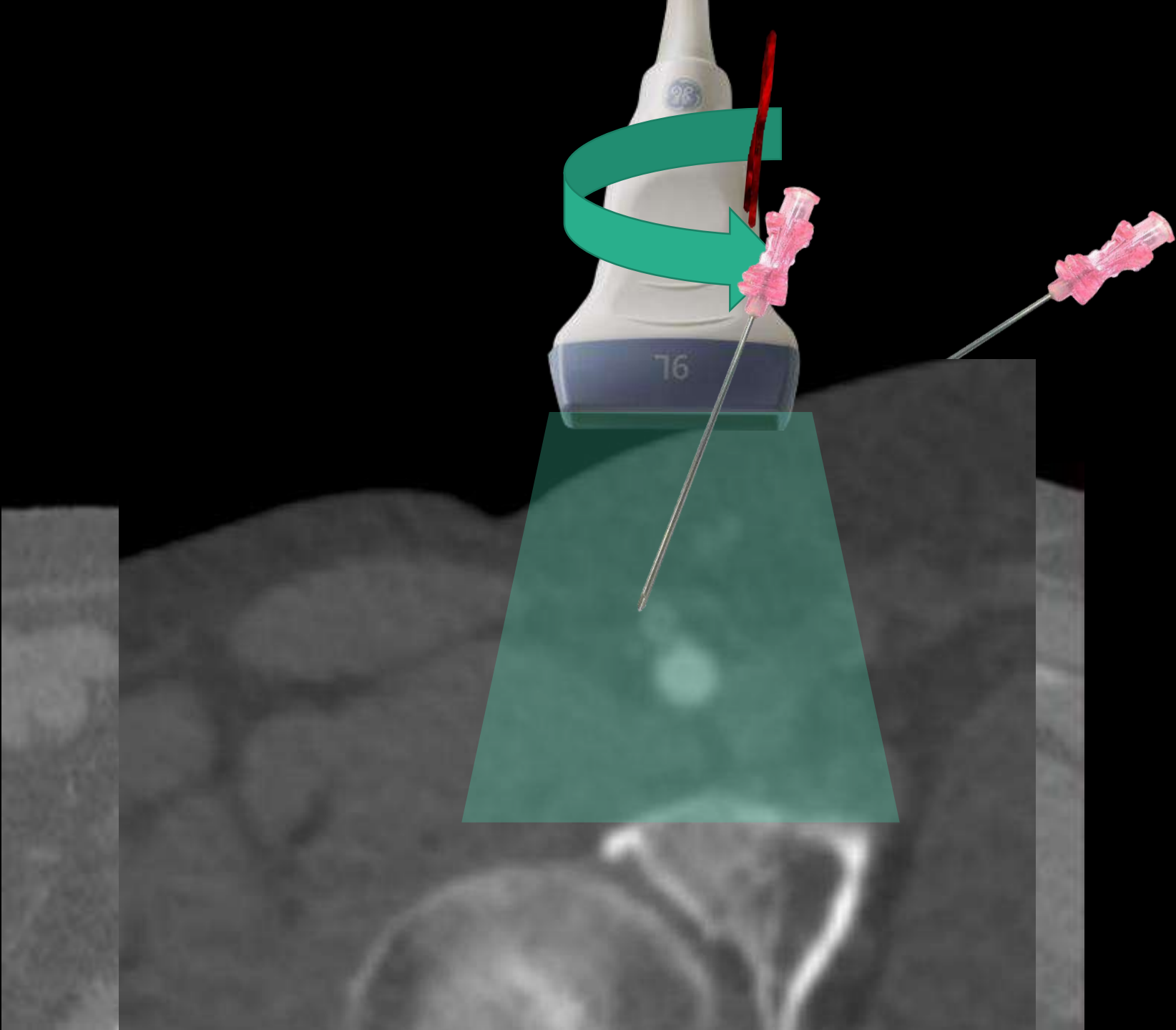
Cabeça do fêmur

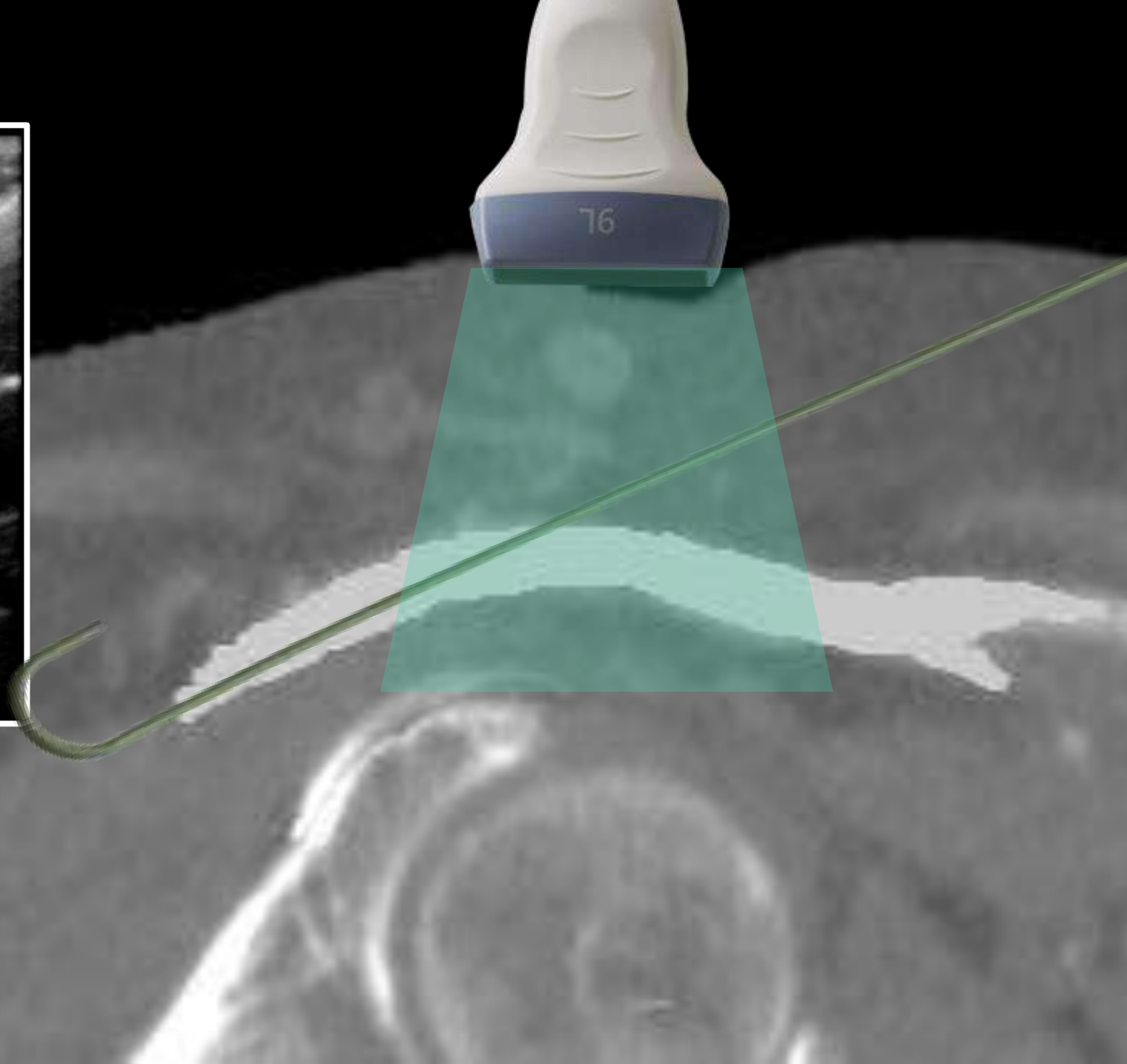
Tracking da agulha em tempo real, incluindo *tracking* da ponta da agulha entrando na parede anterior de AFC

Entrada do fio guia na luz verdadeira (visualizado em planos ortogonais)

AFC, Bifurcação e Cabeça do Fêmur

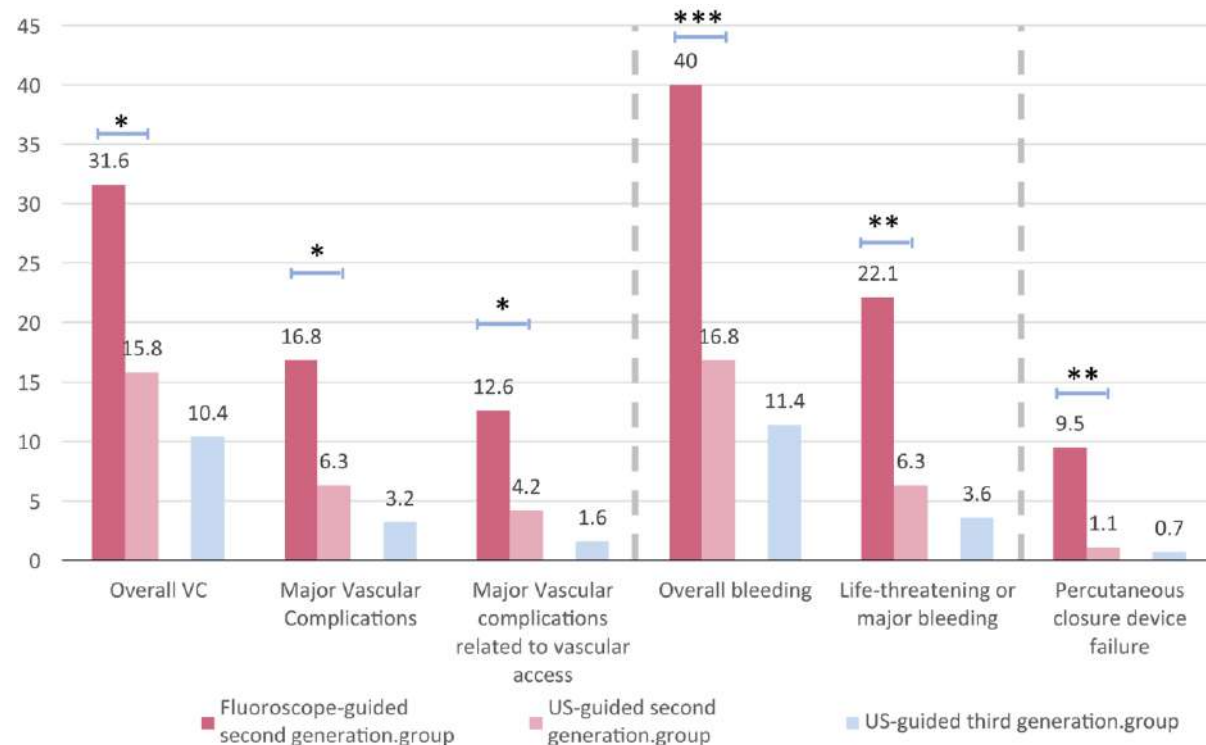
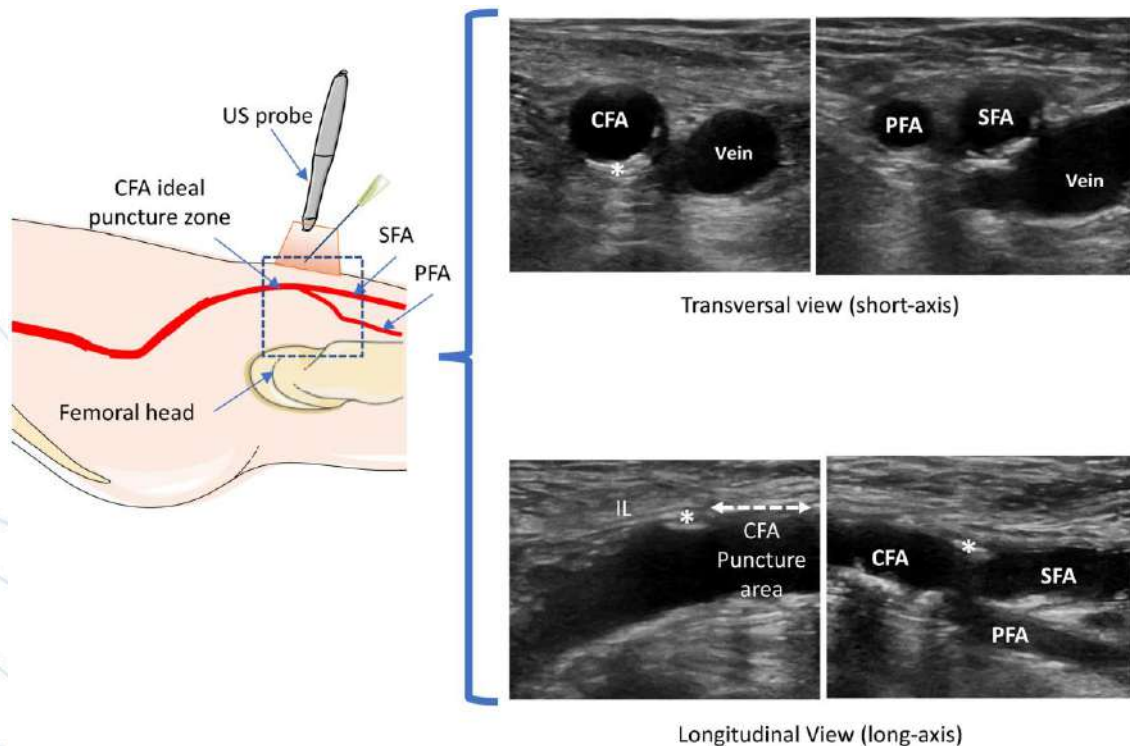






Ultrasound Guidance to Reduce Vascular and Bleeding Complications of Percutaneous Transfemoral Transcatheter Aortic Valve Replacement: A Propensity Score–Matched Comparison

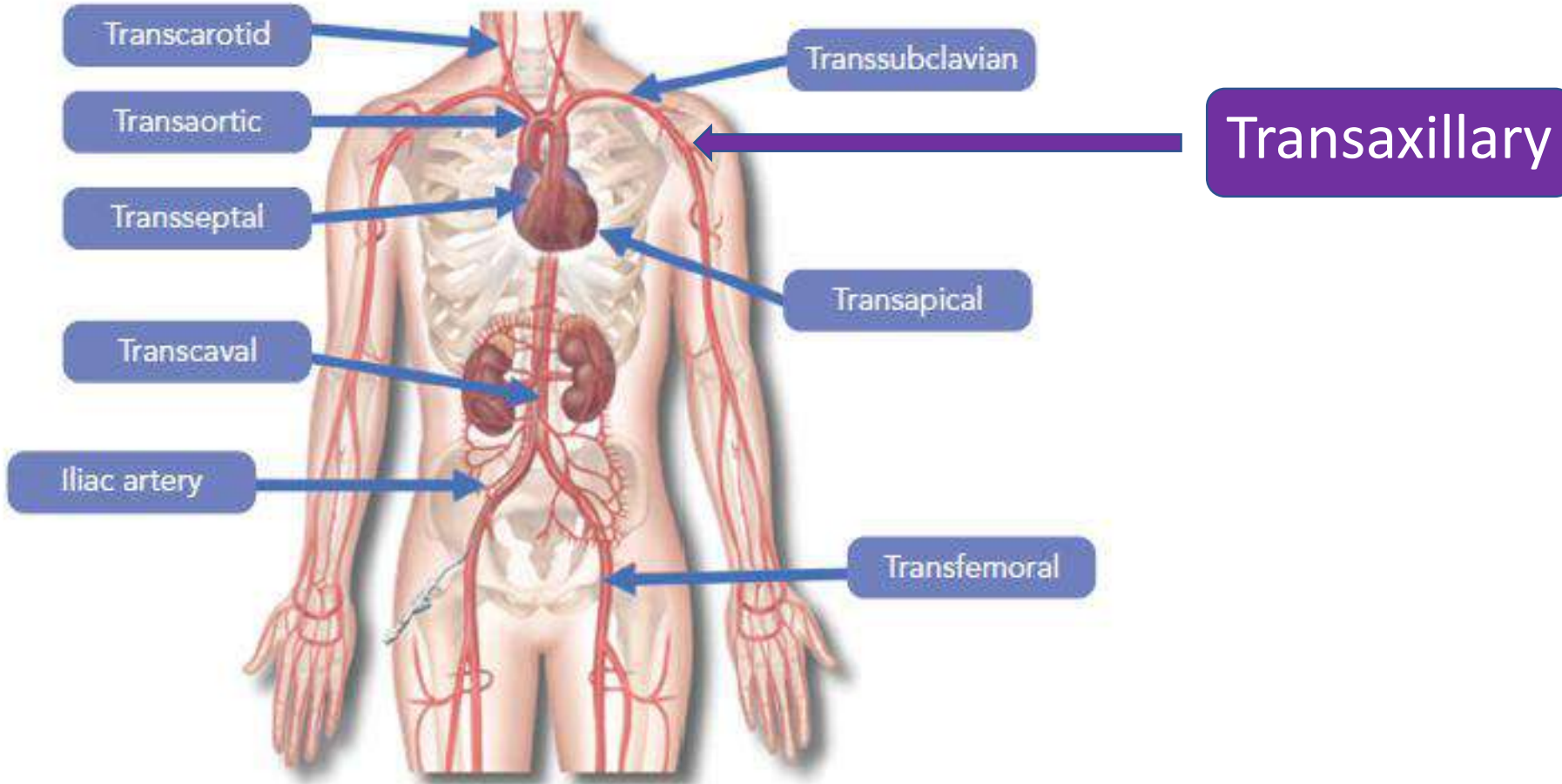
Flavien Vincent, MD, PhD; Hugues Spillemaeker, MD; Maéva Kyheng, BST; Cassandre Belin-Vincent, MD; Cédric Delhayé, MD; Adeline Piérache, BST; Tom Denimal, MD; Basile Verdier, MD; Nicolas Debry, MD; Mouhamed Moussa, MD; Guillaume Schurtz, MD; Sina Porouchani, MD; Alessandro Cosenza, MD; Francis Juthier, MD, PhD; Thibault Pamart, MD; Marjorie Richardson, MD; Augustin Coisne, MD, PhD; Adrien Hertault, MD, PhD; Jonathan Sobocinski, MD, PhD; Thomas Modine, MD, PhD; François Pontana, MD, PhD; Alain Duhamel, MD, PhD; Julien Labreuche, BST; Eric Van Belle, MD, PhD 

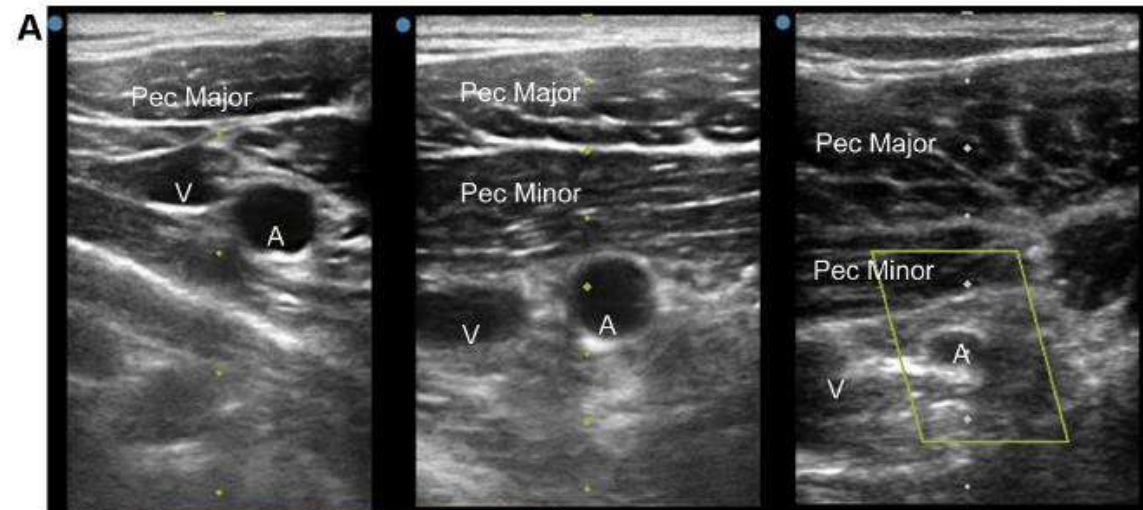
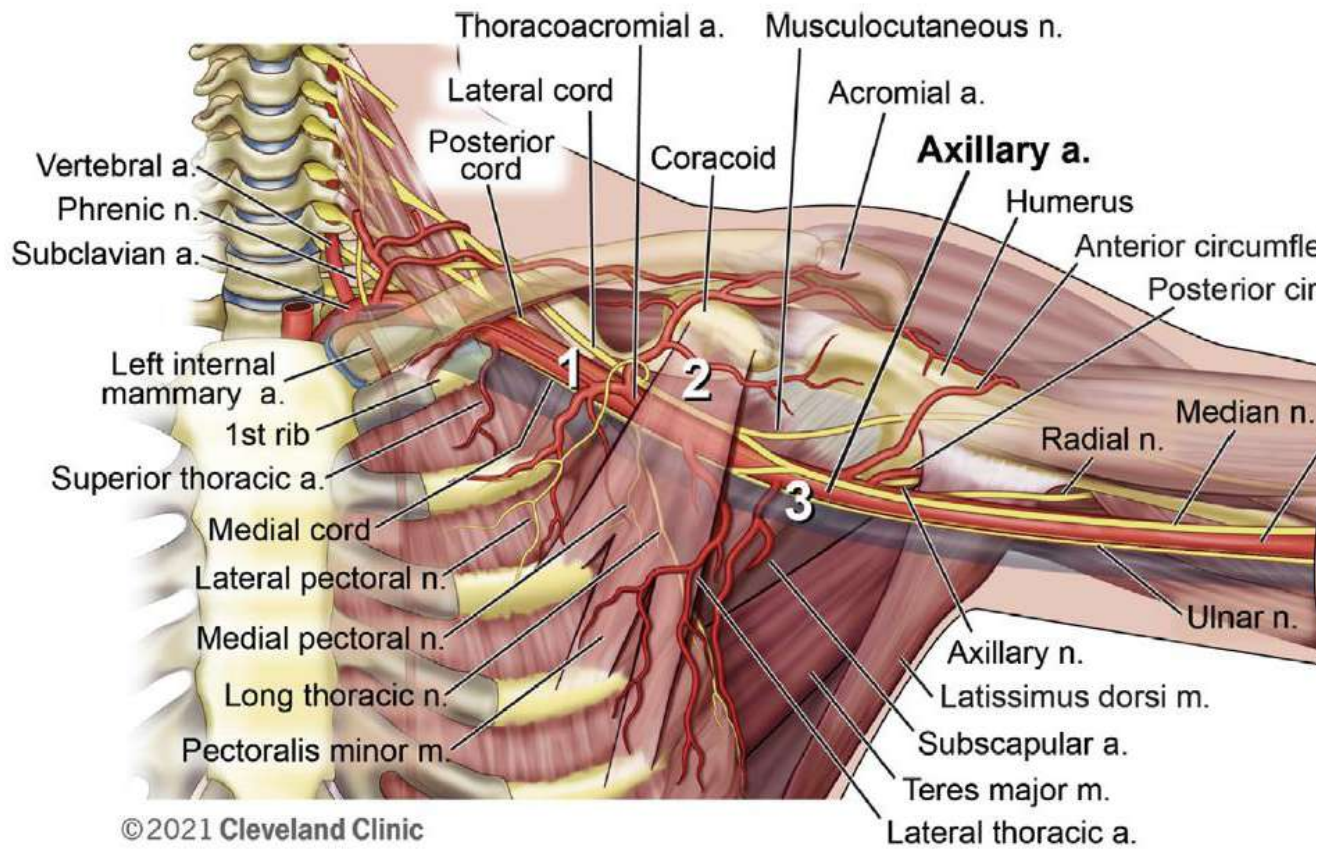


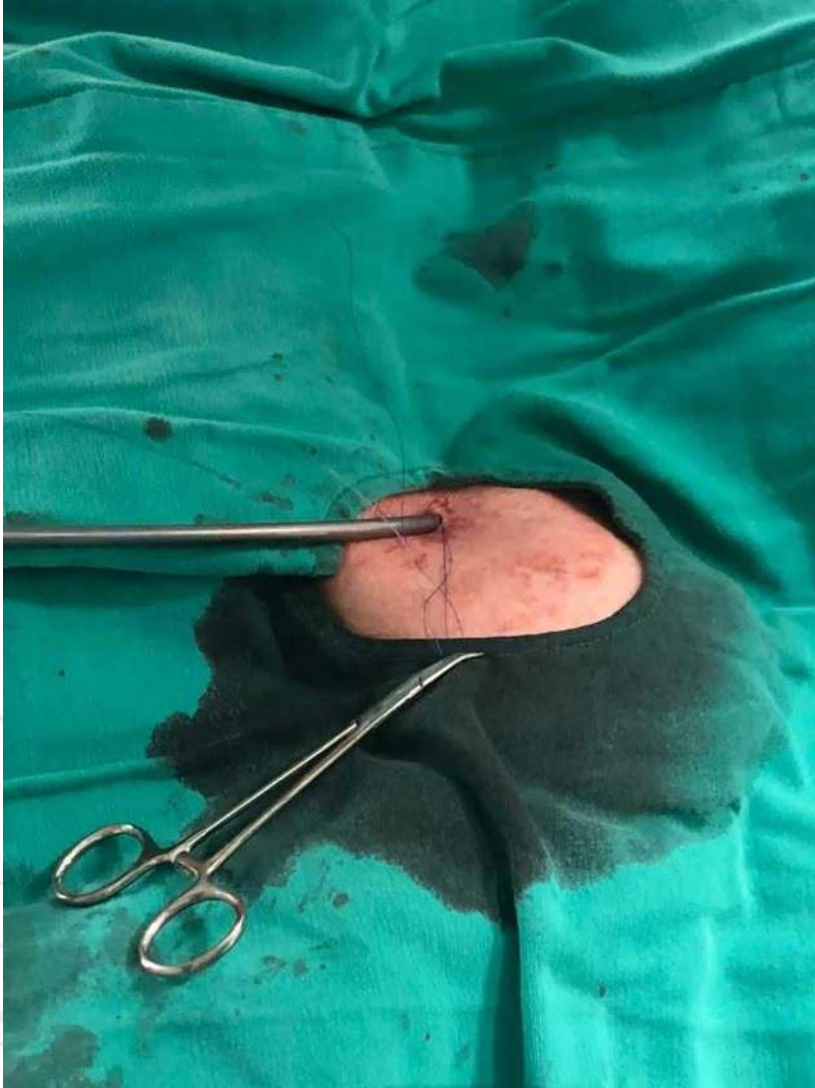
Acesso Transfemoral

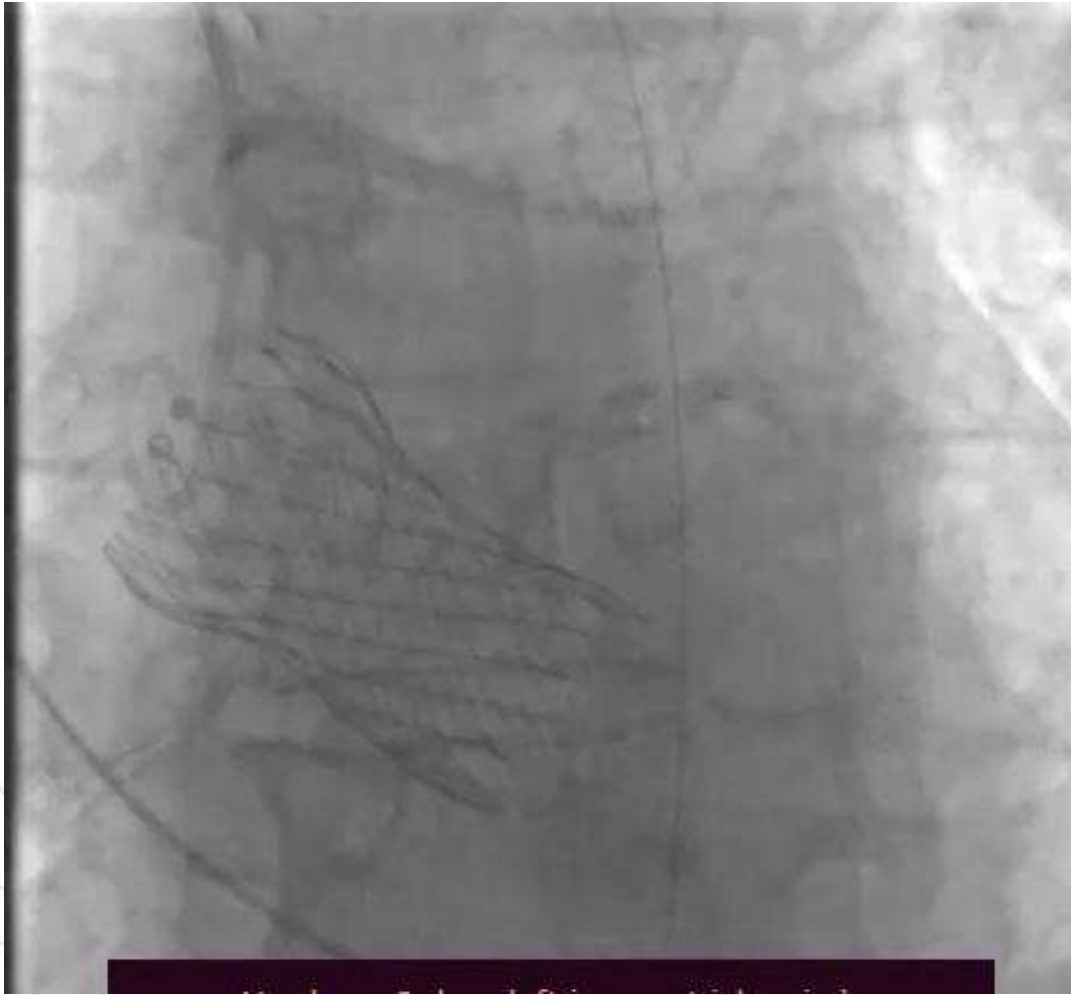
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Opções de Acessos













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