

COMPLICACIONES RARAS DEL ACCESO RADIAL ASOCIADAS A LOS DISPOSITIVOS USADOS

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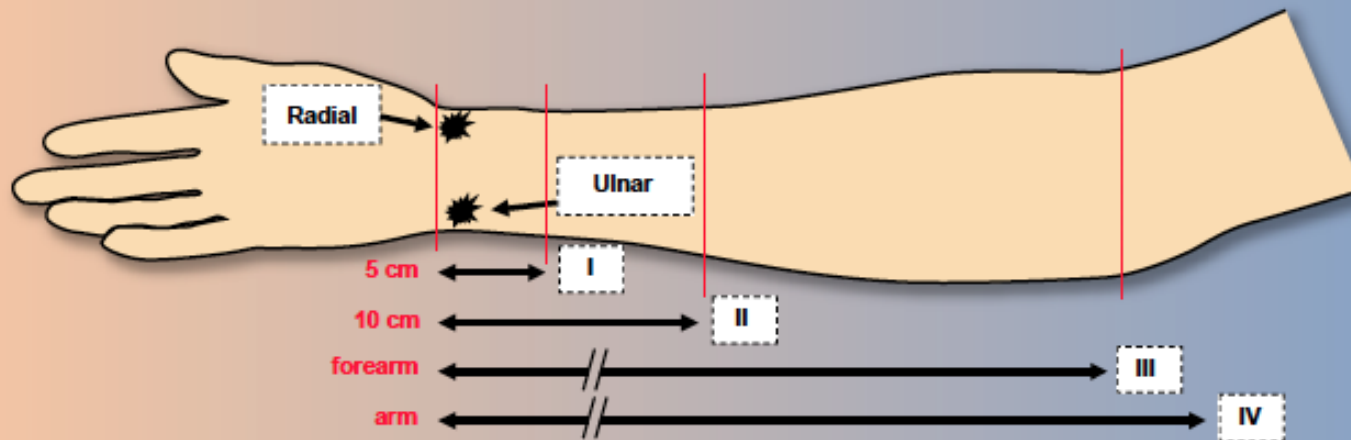
Acceso Radial

- Las ventajas del acceso radial son las siguientes:
 - Comorbidad para el paciente
 - Procedimiento más económico, facilita el alta precoz con seguridad
 - Disminuye el riesgo de complicaciones hemorrágicas
 - Las posibles complicaciones son menos graves

Revisión bibliográfica

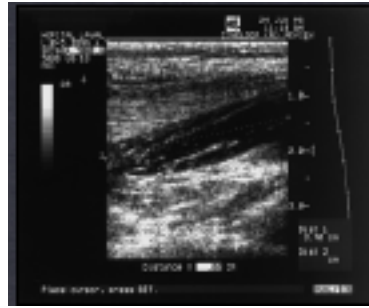
Complication	Prevalence	Risk factors	Prevention & Treatment
Radial artery occlusion	2–18%	<ul style="list-style-type: none"> • Prolonged high-pressure compression • Repeat entry • Low radial artery to sheath ratio 	<ul style="list-style-type: none"> • Anticoagulation • Patent hemostasis
Nonocclusive radial artery injury	Common		<ul style="list-style-type: none"> • Careful evaluation before harvesting as a graft
Hand ischemia	Extremely rare	<ul style="list-style-type: none"> • Prolonged cannulation 	<ul style="list-style-type: none"> • Careful examination of circulation
Radial artery spasm	5–10%	<ul style="list-style-type: none"> • Small radial arteries • Female • Multiple catheter exchanges • Larger sheath size • Inexperience 	<ul style="list-style-type: none"> • Antispasmodic cocktail • Gentle manipulation
Perforation	0.1%–1%	<ul style="list-style-type: none"> • Aggressive wire manipulation • Excessive anticoagulation 	<ul style="list-style-type: none"> • Early detection and pressure bandage for hematoma
Pseudoaneurysm	Rare (<0.1%)	<ul style="list-style-type: none"> • Multiple puncture • Catheter infection • Excessive anticoagulation • Larger sheath sizes 	<ul style="list-style-type: none"> • Compression • Thrombin injection • TR band
Nerve damage	Extremely rare	<ul style="list-style-type: none"> • Multiple puncture 	<ul style="list-style-type: none"> • Supportive care
Granuloma	2.8%	<ul style="list-style-type: none"> • Cook sheath 	<ul style="list-style-type: none"> • Removal of the coating
AV fistula	Extremely rare	<ul style="list-style-type: none"> • Multiple puncture 	<ul style="list-style-type: none"> • Surgical repair if necessary
Bleeding/Transfusion	0.15%		

EASY Hematoma Classification after Transradial/Ulnar PCI



GRADE	I	II	III	IV	V
INCIDENCE	≤ 5%	< 3%	< 2%	≤ 0.1%	< 0.01%
DEFINITION	Local hematoma, superficial	Hematoma with moderate muscular infiltration	Forearm hematoma and muscular infiltration, below the elbow	Hematoma and muscular infiltration extending above the elbow	Ischemic threat (compartment syndrome)
TREATMENT	Analgesia Additional bracelet Local ice	Analgesia Additional bracelet Local ice	Analgesia Additional bracelet Local ice Inflated BP cuff	Analgesia Additional bracelet, Local ice Inflated BP cuff	Consider surgery
NOTES		Inform physician	Inform physician	Inform physician	STAT call to physician
REMARKS	<ul style="list-style-type: none"> - Control blood pressure (BP) (importance of pain management) - Consider interruption of any anticoagulation and/or antiplatelet infusion - Follow forearm and arm diameters to evaluate requirement for additional bracelet and/or BP cuff inflation - Additional bracelet(s) can be placed alongside artery anatomy - Ice cubes in a plastic bag or washcloth are placed on the hematoma - Finger O₂ saturation can be monitored during inflated blood pressure cuff - To inflate blood pressure cuff, select a pressure of 20 mmHg < systolic pressure and deflate every 15 minutes - After bracelet removal, use "Velpeau bandage" around forearm/arm for a few hours to maintain mild positive pressure 				





En dicho centro, próximo a los 100.000 casos radiales, 3 patients tuvieron síndrome compartimental que necesitasen cirugía. Muertes: cero



Tizon H, Barbeau G, J Interv Cardiol 2008

Radial versus femoral access for coronary angiography and intervention in patients with acute coronary syndromes (RIVAL): a randomised, parallel group, multicentre trial

Sanjit S Jolly, Salim Yusuf, John Cairns, Kari Niemelä, Denis Xavier, Petr Widimsky, Andrzej Budaj, Matti Niemelä, Vicent Valentin, Basil S Lewis, Alvaro Avezum, Philippe Gabriel Steg, Sunil V Rao, Peggy Gao, Rizwan Afzal, Campbell D Joyner, Susan Chrolavicius, Shamir R Mehta, for the RIVAL trial group*

	Radial (n=3507)	Femoral (n=3514)	HR (95% CI)	p value
Major vascular complications at 30 days				
Large haematoma	42 (1.2%)	106 (3.0%)	0.40 (0.28–0.57)	<0.0001
Pseudoaneurysm needing closure	7 (0.2%)	23 (0.6%)	0.30 (0.13–0.71)	0.006
Arteriovenous fistula	0 (0%)	5 (0.1%)
Ischaemic limb needing surgery	1 (0%)*	0 (0%)
PCI complications†				
Abrupt closure	12 (0.5%)	11 (0.5%)	1.11 (0.49–2.51)	0.81
No reflow	21 (0.9%)	31 (1.3%)	0.69 (0.40–1.20)	0.19
Dissection with reduced flow	30 (1.3%)	25 (1.1%)	1.22 (0.72–2.07)	0.46
Coronary perforation	5 (0.2%)	4 (0.2%)	1.27 (0.34–4.73)	0.72
Catheter thrombus	2 (0.1%)	2 (0.1%)	1.01 (0.14–7.21)	0.99

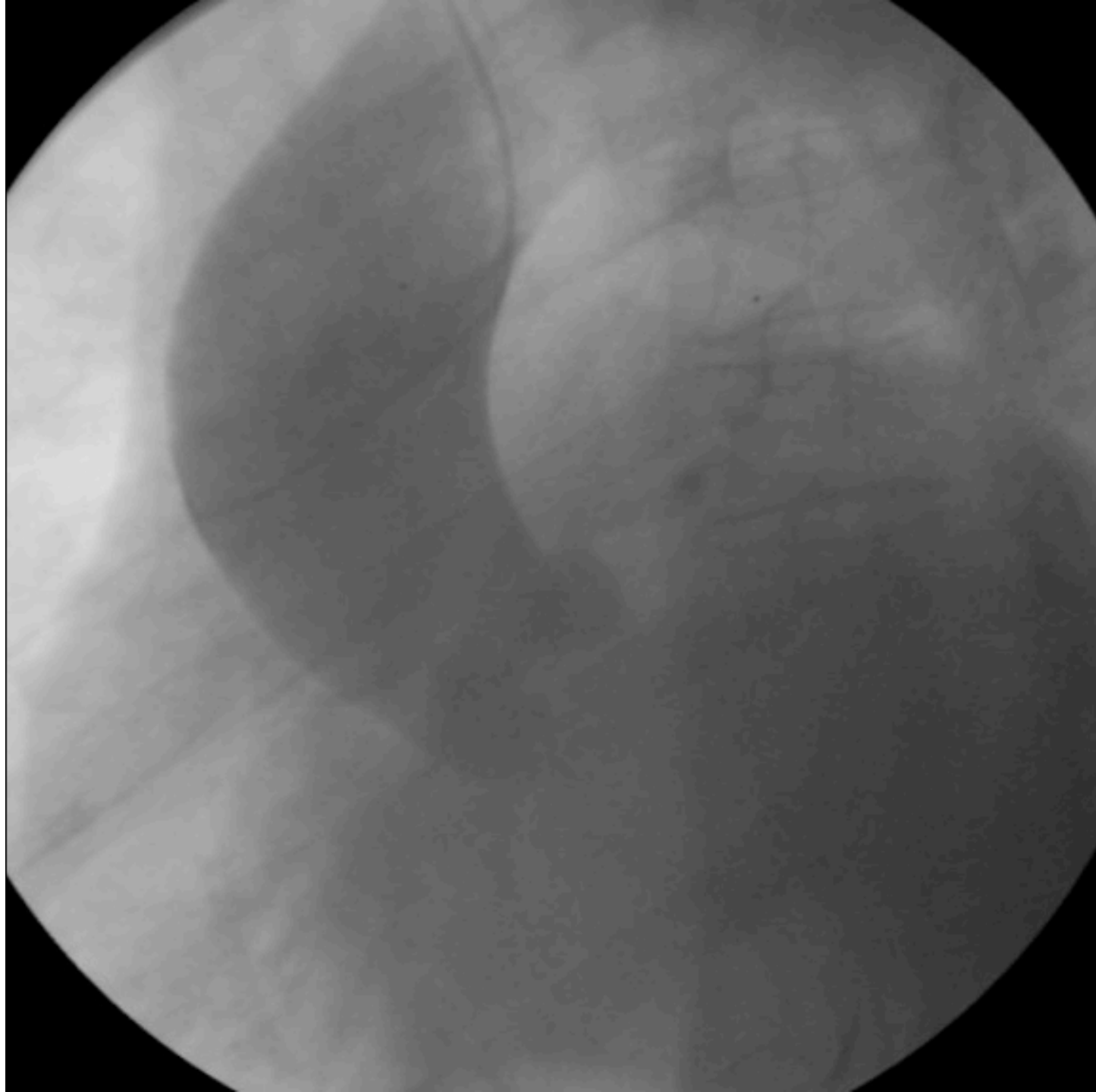
**OTRAS COMPLICACIONES RARAS
PUEDEN SURGIR....**

SE PRESENTA UN CASO CLÍNICO

- Mujer de 74 años con Ap de HTA, DM.
- Historia cardiologica de EAo moderada-severa en control anual ecocardiográfico.
- Vista en consulta con clínica de angina de esfuerzo y disnea grado III NYHA.
- Eco de control gradiente de 80 mmHg
- Se envía para cateterismo diagnóstico previo a cirugía de RVAo





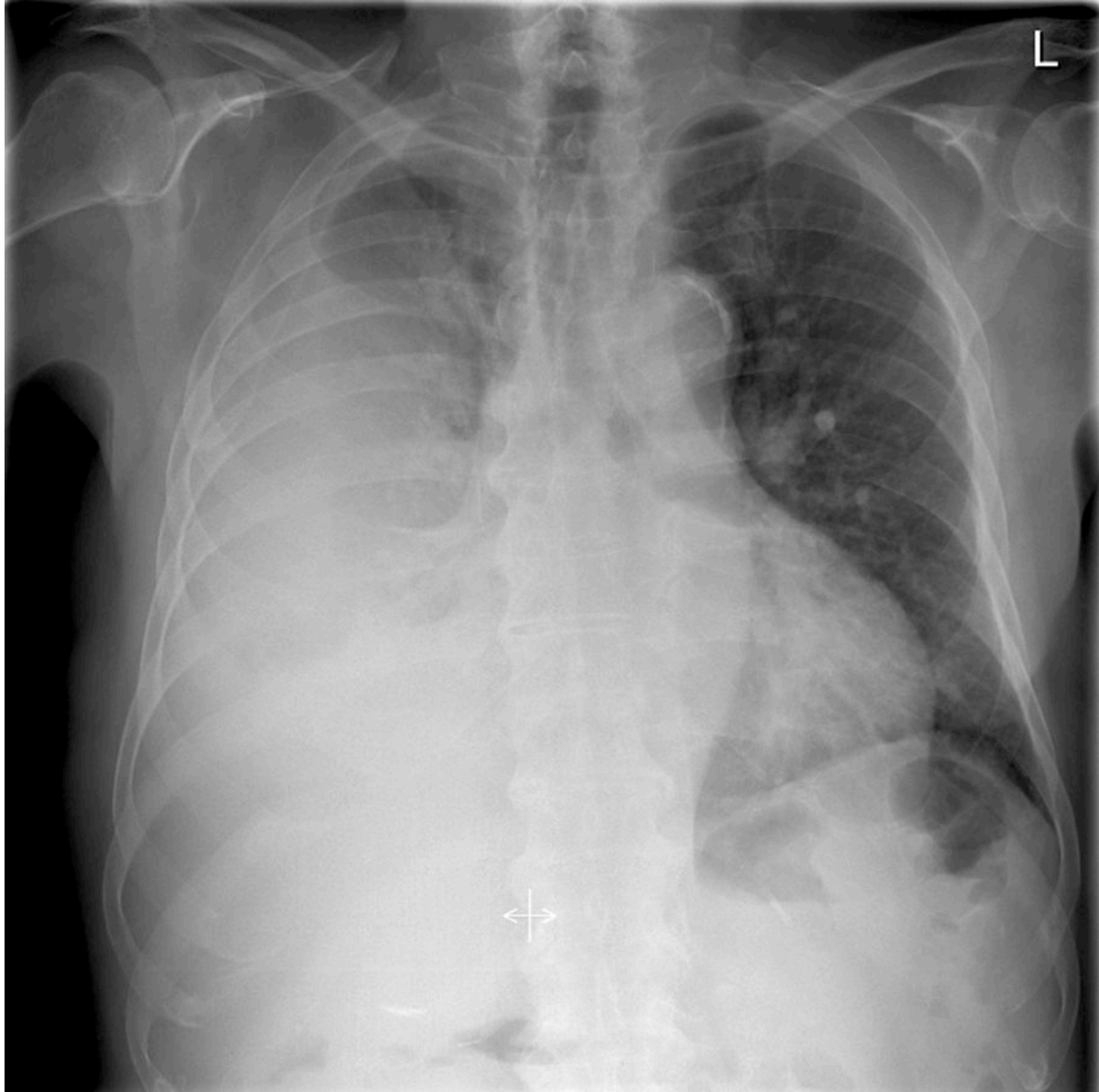


TRAS EL CATETERISMO LA PACIENTE REFIERE....

- Dolor torácico cada vez más importante...

- Comienza con disnea....
- Saturación 96%.

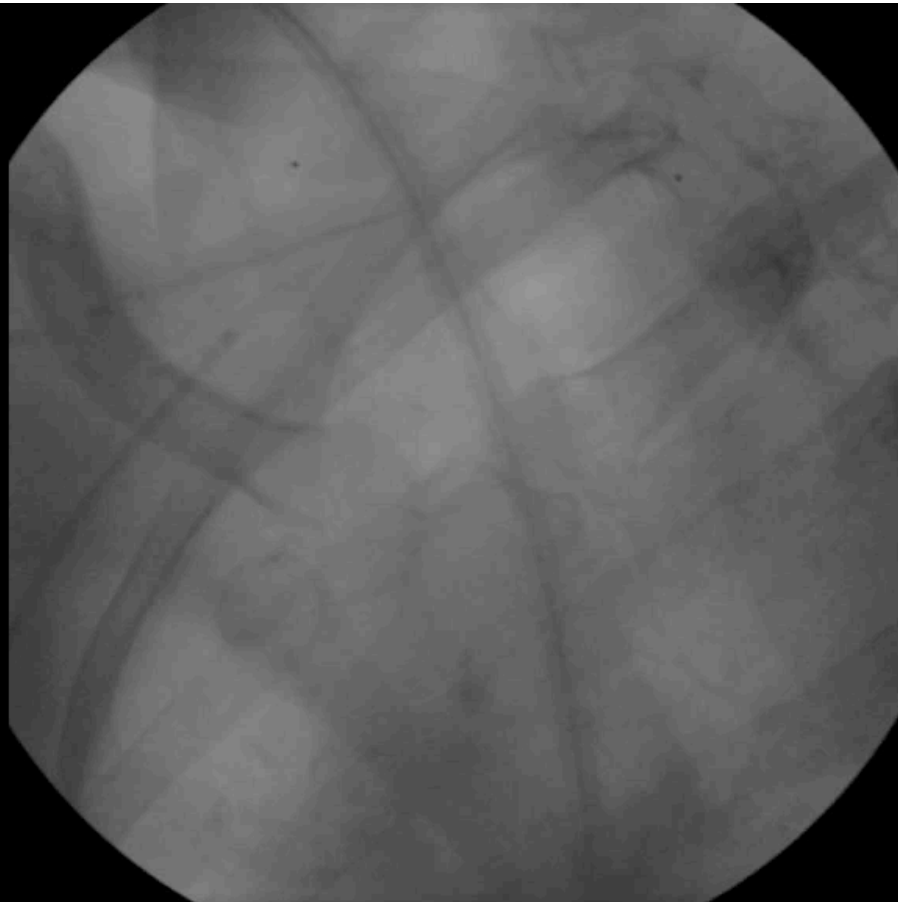
SE REALIZA RX DE TÓRAX



NUEVO ACCESO PARA REALIZAR INYECCIÓN EN LA ARTERIA SUBCLAVIA

Observándose un sangrado de una rama tirocervical

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View size: 1231 x 575
WL: 128 WW: 256

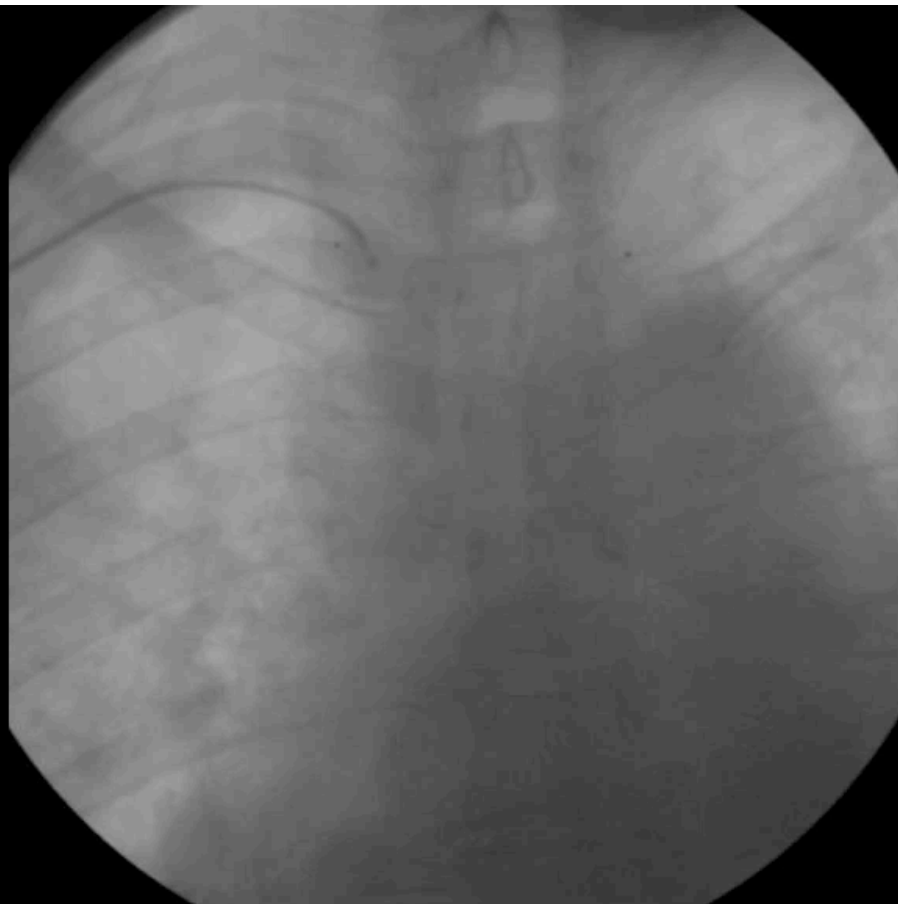


02/02/38 -75 y / 69 y
251627
CORONARIOGRAFIA
unnamed
6896
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Im: 19/79
Zoom: 112% Angle: 0

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Made In OsiriX

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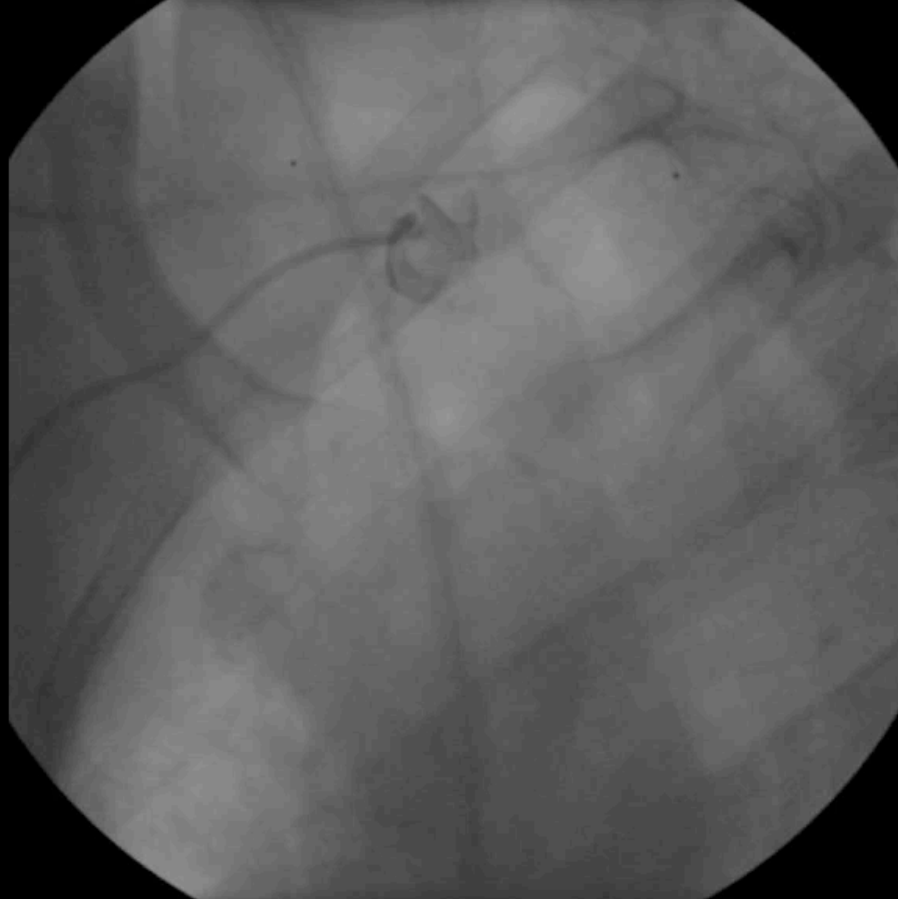
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CORONARIOGRAFIA
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Se cateteriza selectivamente la rama tirocervical

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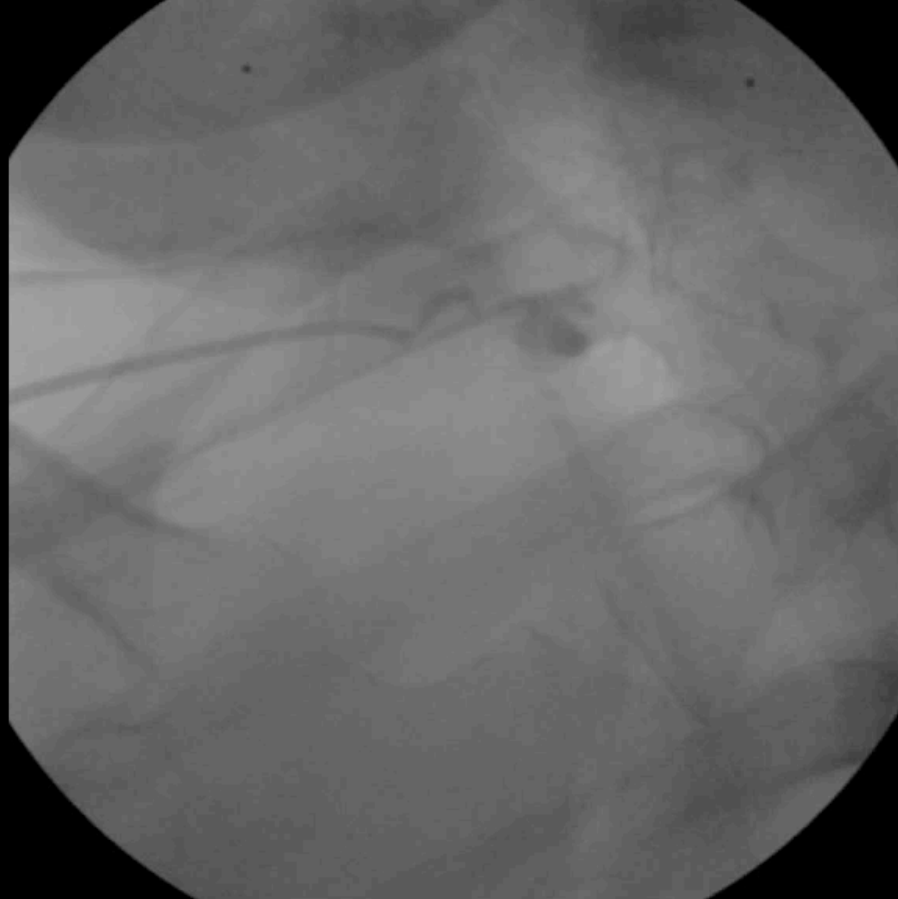
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Y se procede al coiling selectivo de dicha rama

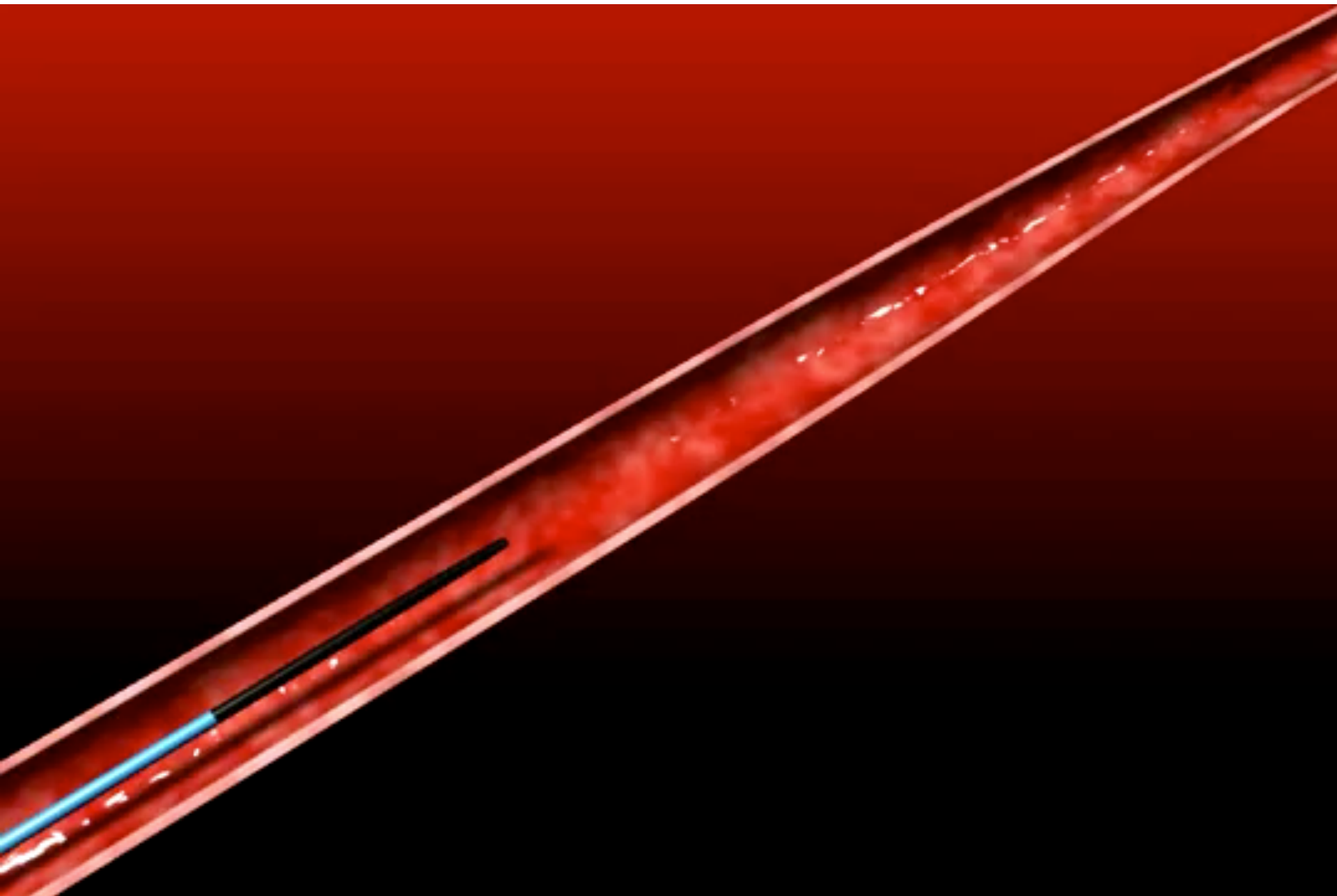
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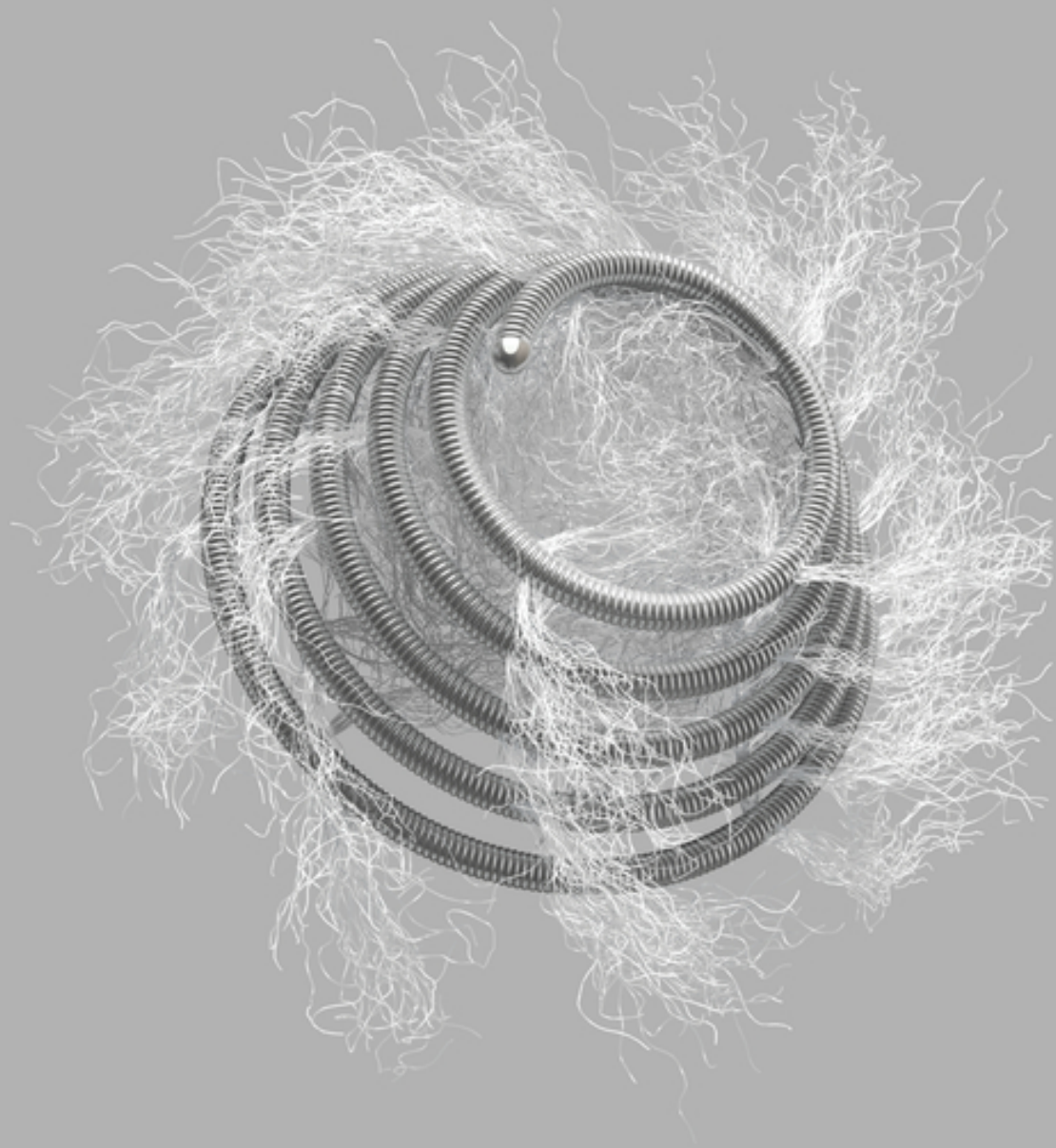


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CORONARIOGRAFIA
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Order Number	Reference Part Number	Recommended Catheter ID and End Hole Diameter inch	Extended Embolus Length cm	Coiled Embolus Tapering Diameter mm
.018 inch				
G08261	MWCE-18S-3/2-TORNADO	.018	2	3 - 2
G08357	MWCE-18S-4/2-TORNADO	.018	4	4 - 2
G08356	MWCE-18S-5/2-TORNADO	.018	5	5 - 2
G08259	MWCE-18S-6/2-TORNADO	.018	7	6 - 2
G09218	MWCE-18S-7/3-TORNADO	.018	9	7 - 3
G09215	MWCE-18S-8/4-TORNADO	.018	9.5	8 - 4
G09217	MWCE-18S-10/4-TORNADO	.018	14.2	10 - 4
.035 inch				
G10414	MWCE-35-4/3-TORNADO	.035	2.6	4 - 3
G10415	MWCE-35-5/3-TORNADO	.035	4.1	5 - 3
G10416	MWCE-35-6/3-TORNADO	.035	5.8	6 - 3
G10417	MWCE-35-7/3-TORNADO	.035	8	7 - 3
G10411	MWCE-35-8/4-TORNADO	.035	8	8 - 4
G10412	MWCE-35-8/5-TORNADO	.035	8.2	8 - 5
G10428	MWCE-35-10/4-TORNADO	.035	12.5	10 - 4
G10413	MWCE-35-10/5-TORNADO	.035	12.5	10 - 5

Image size: 512 x 512
View size: 1231 x 575
WL: 128 WW: 256



02/02/38 - 75 y / 69 y

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CORONARIOGRAFIA

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Im: 1/93
Zoom: 112% Angle: 0

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Image size: 512 x 512
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WL: 128 WW: 256



02/02/38 - 75 y / 69 y

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CORONARIOGRAFIA

unnamed

6910

1

Im: 1/60
Zoom: 112% Angle: 0

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Made In OsiriX

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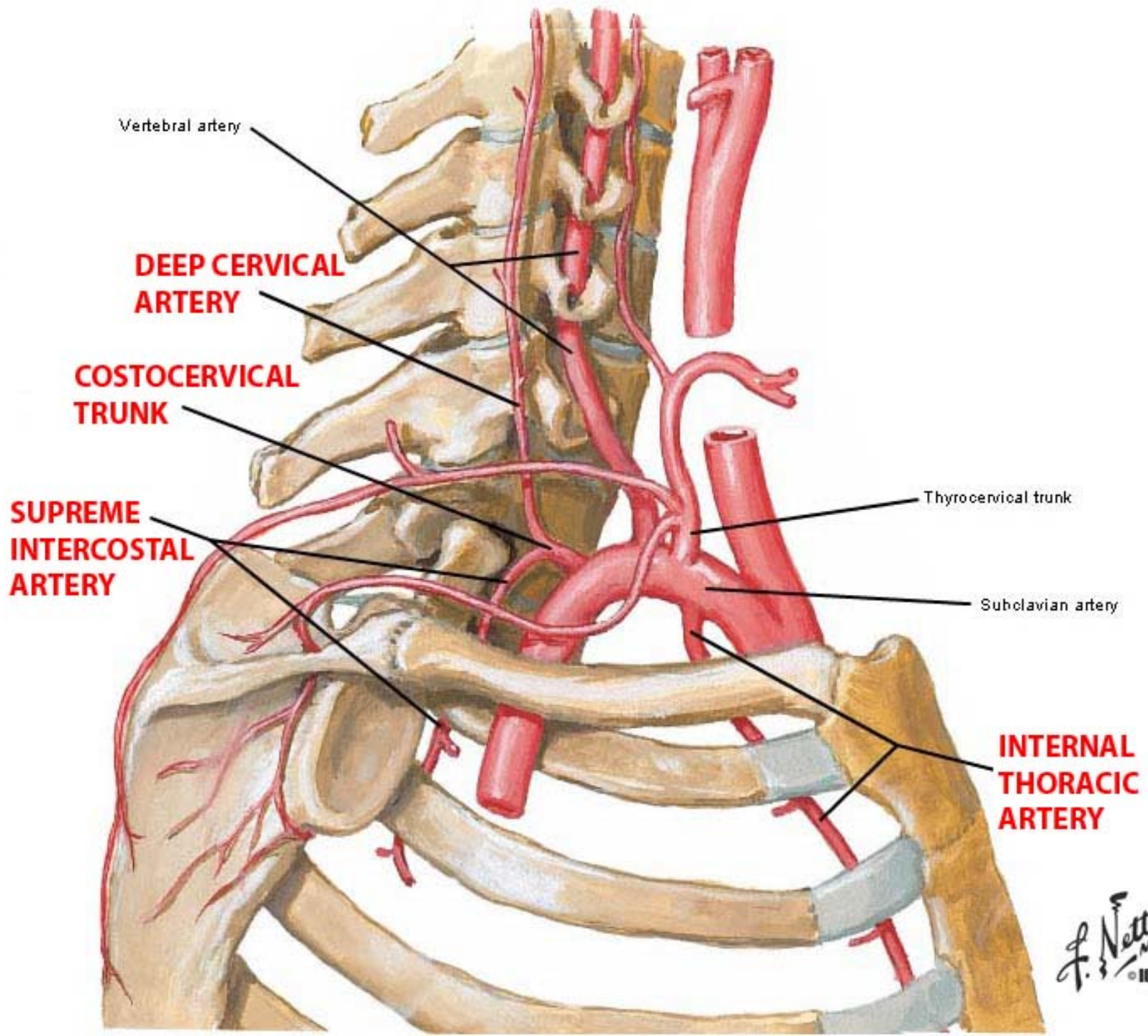
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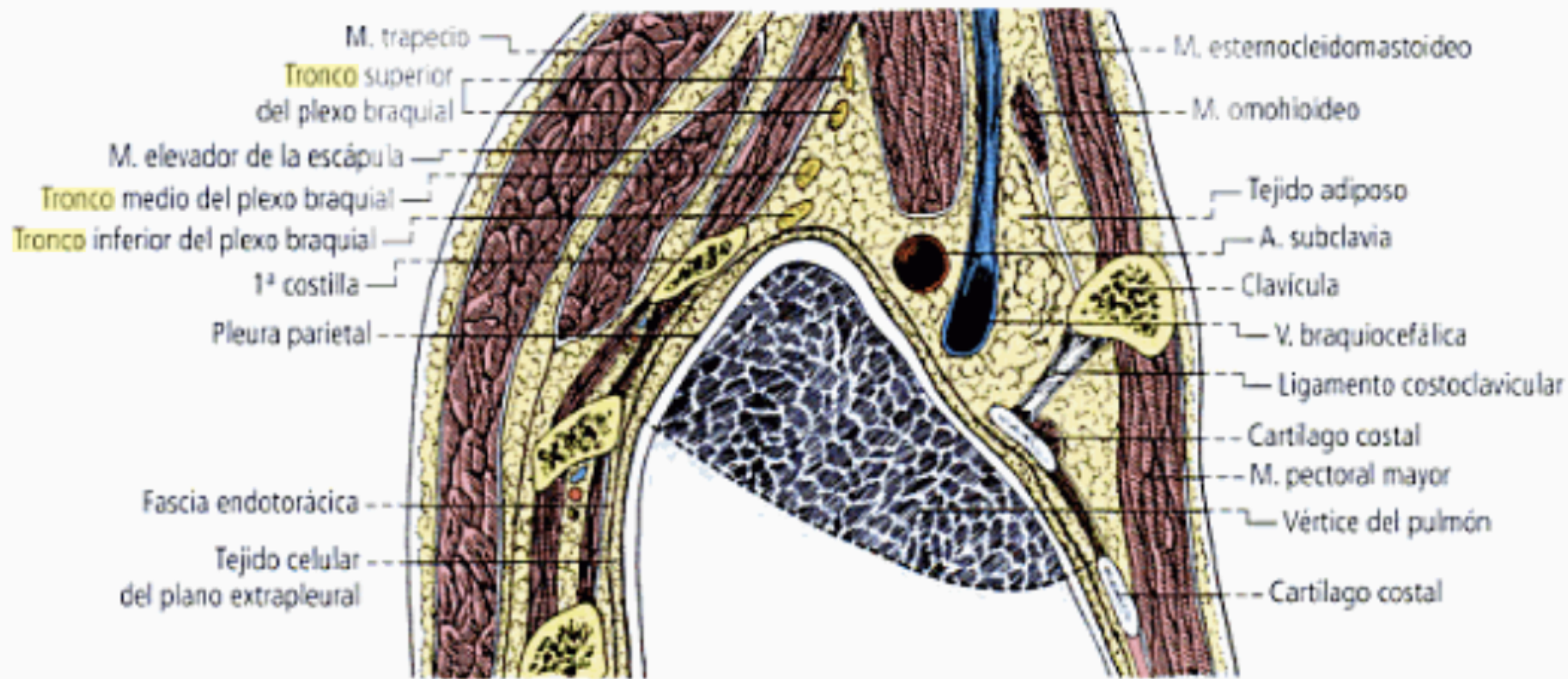








F. Netter
M.D.
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CONCLUSION I

- Una de las complicaciones asociadas a cualquier cateterismo es la rotura o perforación de cualquiera de las ramas secundarias por donde se navega.
- La utilización de guías poliméricas con una J muy poco pronunciada se asocia a este tipo de complicaciones, dado que se avanza la guía sin control y al tener poco torque puede impactar en ramas pequeñas produciendo su perforación como en este caso.

CONCLUSION II

- Se propone realizar estos casos en los que la guía teflonada convencional no es capaz de cruzar las zonas tortuosas y calcificadas con una guía teflonada de características hidrofílicas como la guía de Asahi Silverway
- Siempre que se utilicen guías poliméricas debe seguirse con escopia todo el recorrido de la misma para evitar este tipo de complicaciones y ante cualquier resistencia desistir de avanzar.