CSC 2025
CORONARY AND STRUCTURAL CONGRESS
CONGRESO CORONARIO Y ESTRUCTURAL
MADRID

5, 6 y 7 NOVIEMBRE
HOTEL RIU PLAZA DE ESPAÑA

DCB EN PACIENTE CON ALTO RIESGO HEMORRÁGICO

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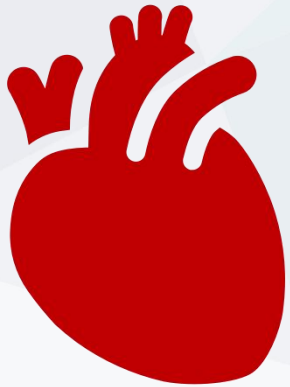
Hospital del Mar, Barcelona

Hospital del Mar
Barcelona

Antecedentes patológicos



Varón de 75 años. Sin AMC.

Factores de riesgo cardiovascular:

- Extabaquismo.
- Sobrepeso (IMC 29,1 kg/m^2).
- Hipertensión arterial.
- Diabetes mellitus tipo 2.
- Dislipemia.

Antecedentes patológicos

Historia cardiológica:

- Cardiopatía isquémica crónica con enfermedad coronaria significativa de un vaso (DA) e ICP sobre DA con un DES en DA media en 2020.
- Fibrilación auricular paroxística con CHA_2DS_2-VA = 6 y HAS-BLED = 2 conocida desde 2021.
- IC con FEVI preservada sin ingresos hospitalarios por IC descompensada.

Antecedentes patológicos

Historia no cardiológica:

- Insuficiencia renal crónica en estadio IIIA (FG habitual 45-50 ml/min/1,73m^2).
- Hiperplasia prostática benigna.

Antecedentes patológicos

Medicación cardiológica:

- Apixaban 5mg/12h.
- Bisoprolol 2,5mg/24h.
- Enalapril 5mg/24h.
- Dapagliflozina 10mg/24h.
- Dulaglutida 1,5mg/7d.
- Atorvastatina 80mg/24h.
- Furosemida 20mg/24h.

Antecedentes patológicos

Analítica previa:

- Hemoglobina 12,7 g/dl.
- Leucocitos 7.600 u/μl.
- Plaquetas 185.000 u/μl.
- Creatinina 1,4 mg/dl.
- Filtrado glomerular 47 ml/min/1,73m^2.

Enfermedad actual

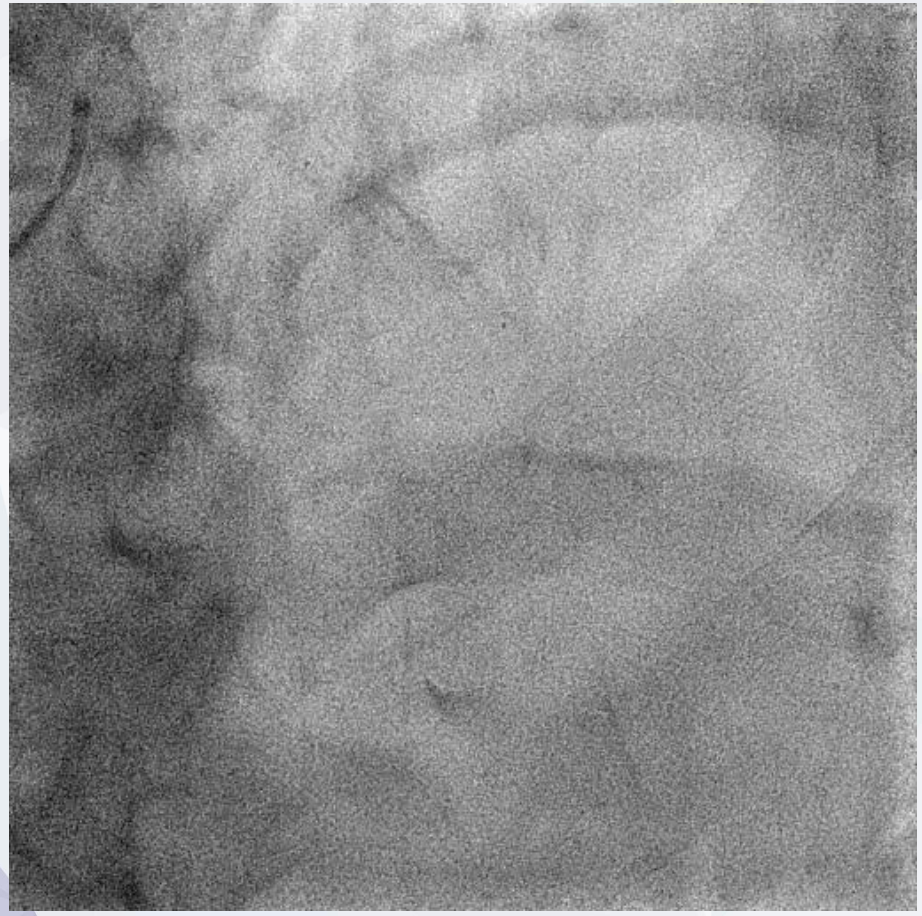
IAMSEST Killip I.

ECG: Sin cambios (BRDHH).

Troponina I: Pico de 2.889 ng/l.

Coronariografía

DA con stent previo permeable y sin reestenosis intrastent significativa.



Coronariografía

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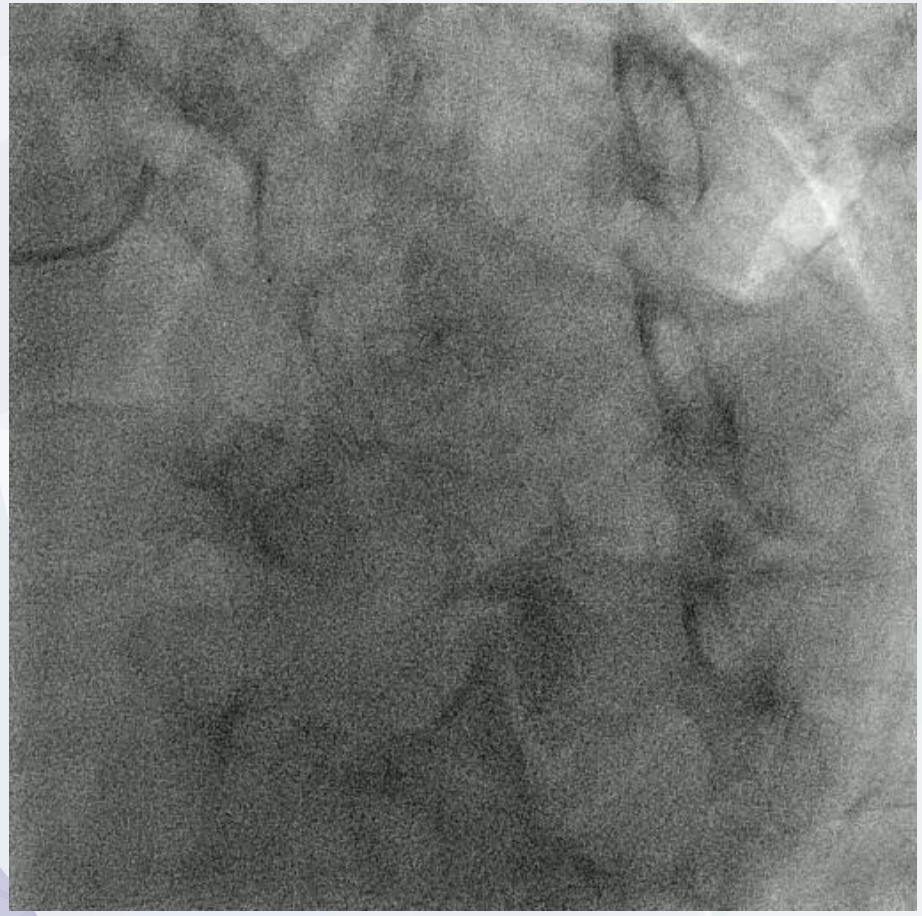
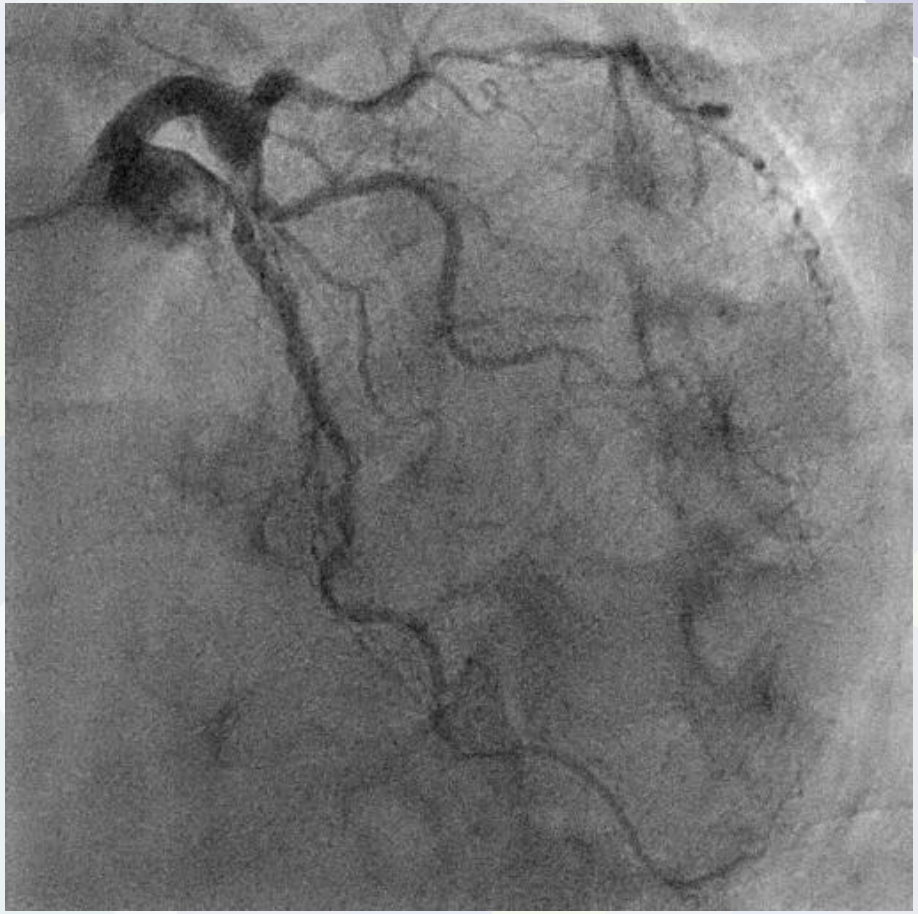
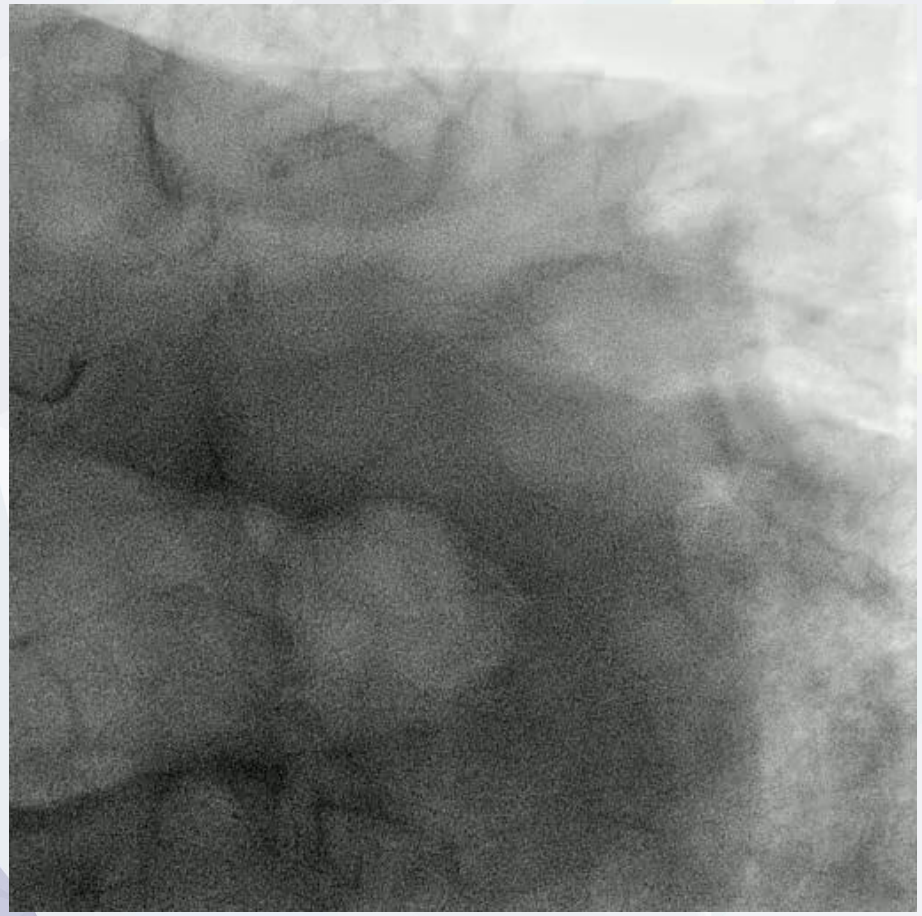




Coronariografía

CX con estenosis severa y larga desde CX proximal hasta OM distal.



Coronariografía

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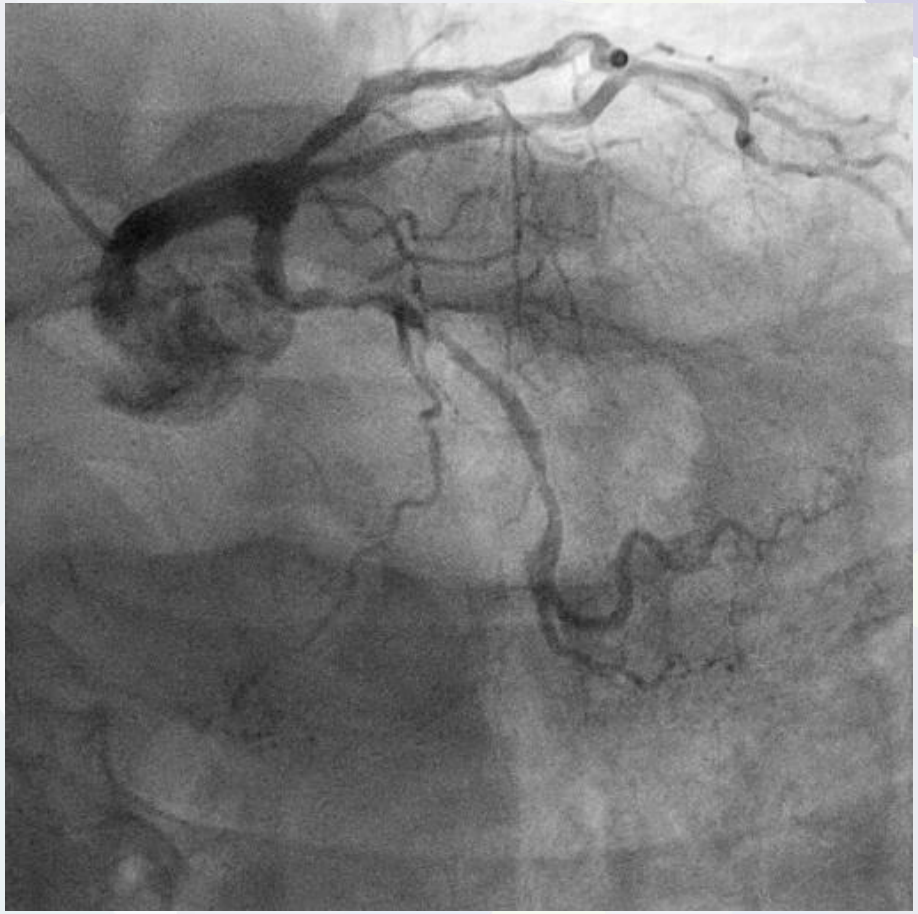
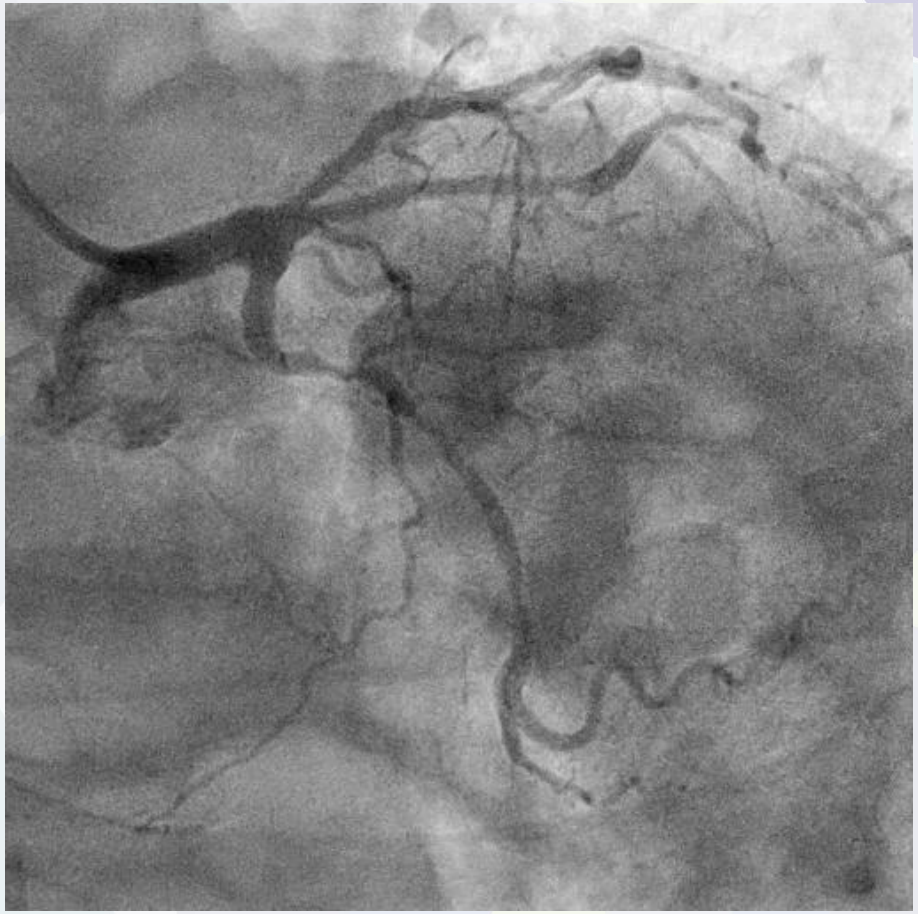


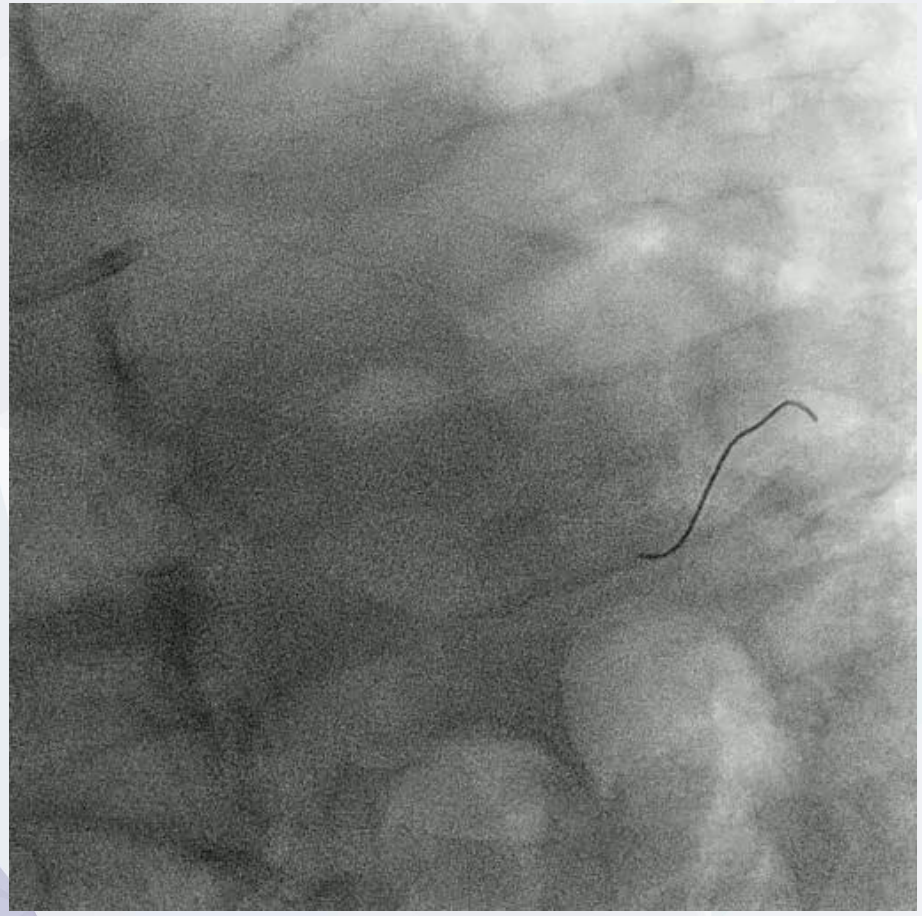
ICP sobre CX-OM

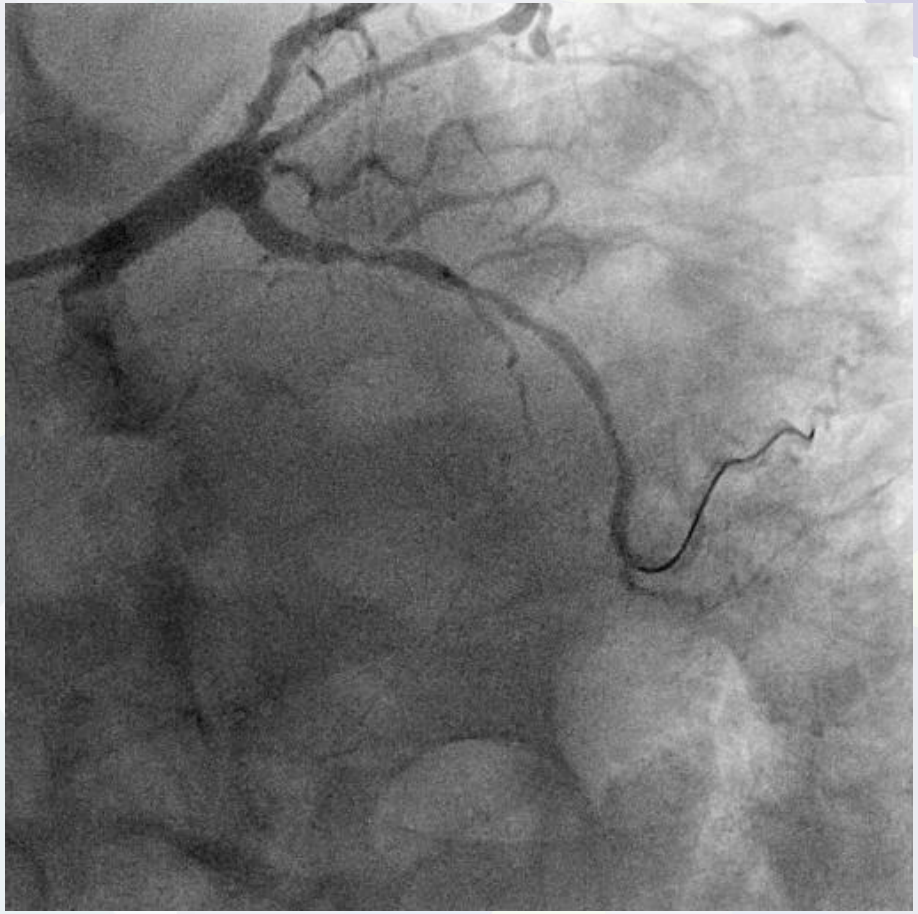
Acceso arterial radial derecho 6F. Catéter guía EBU3,75 de 6F.



ICP sobre CX-OM

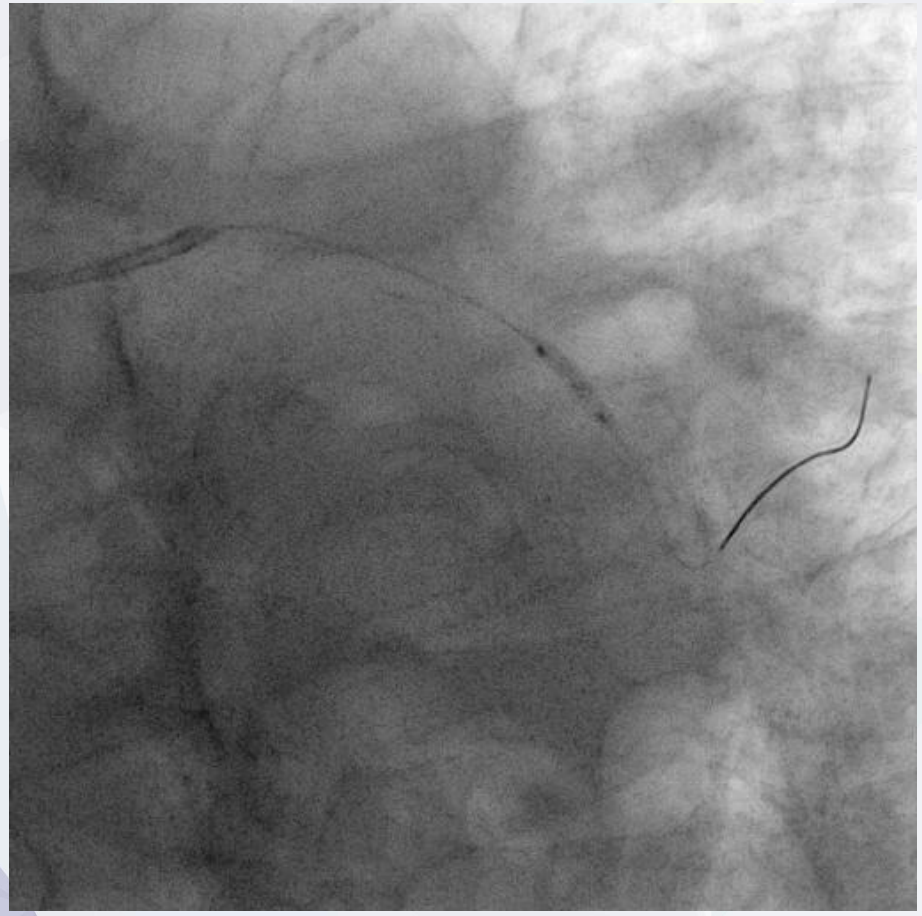
Guía Sion Blue a OM distal.

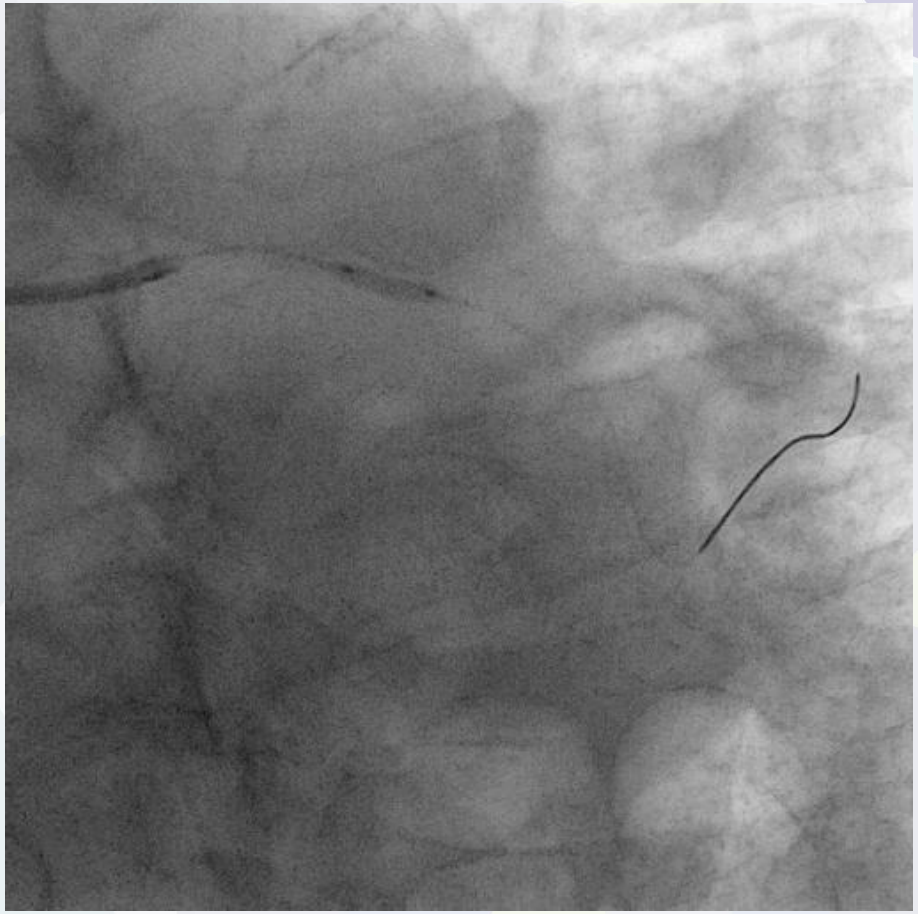




ICP sobre CX-OM

Dilatación con balón SC de 2,0x10 mm a 16 atm.





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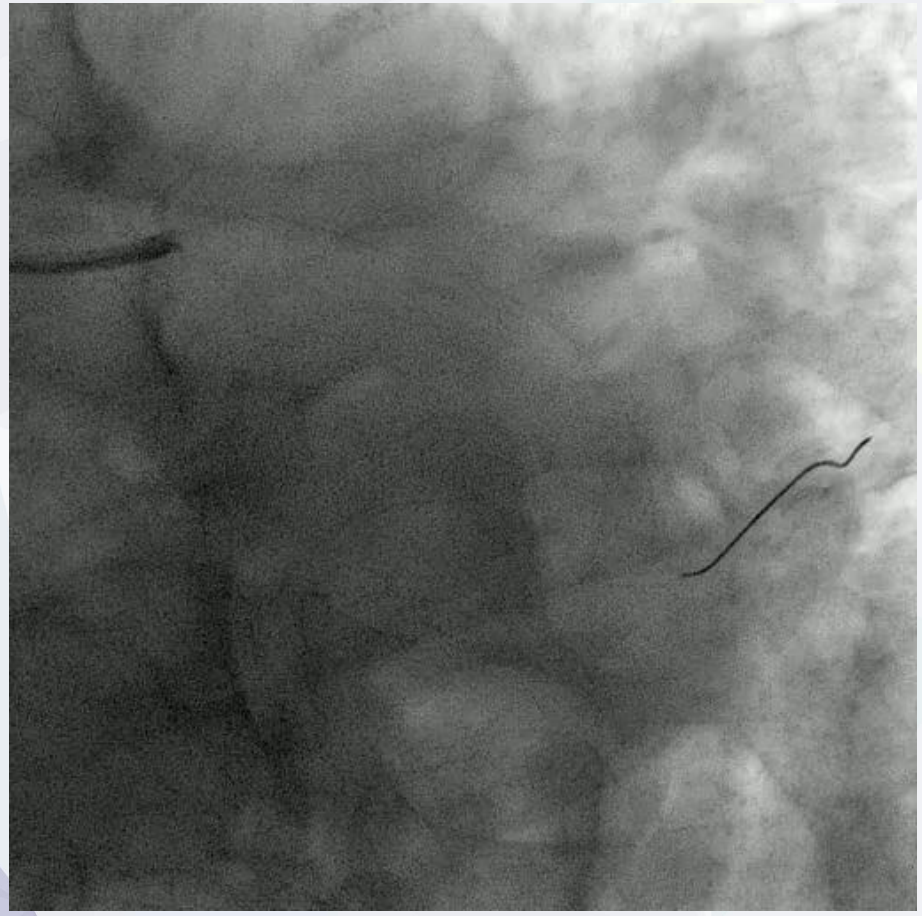
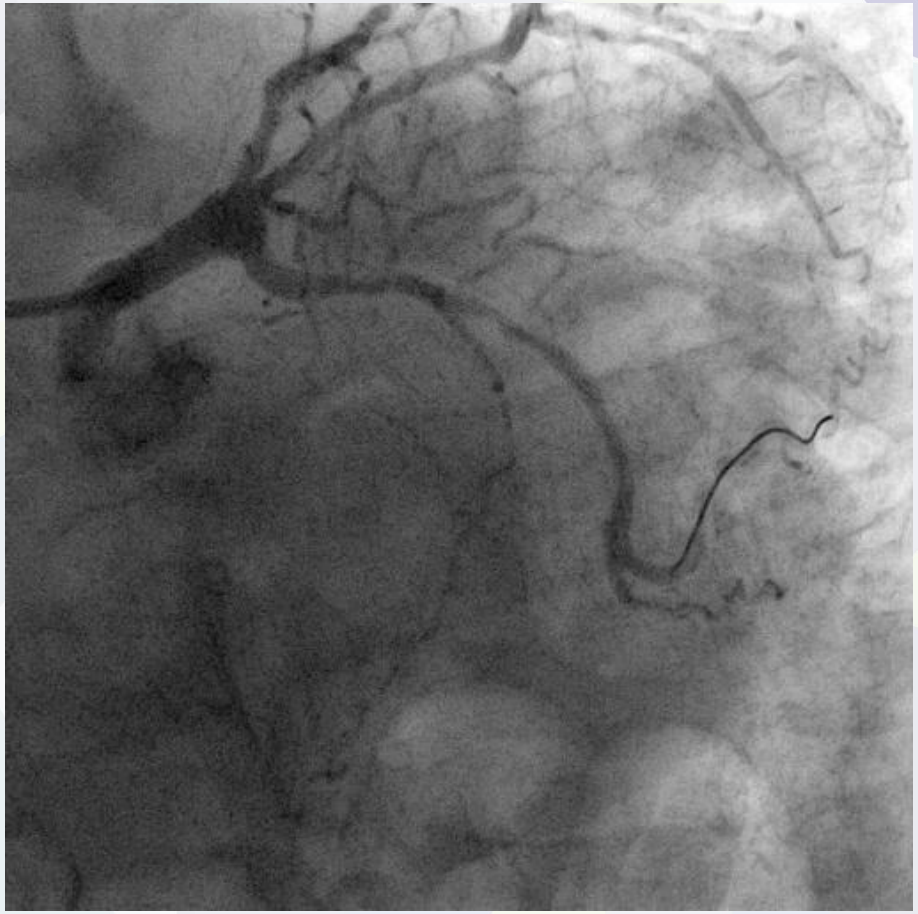
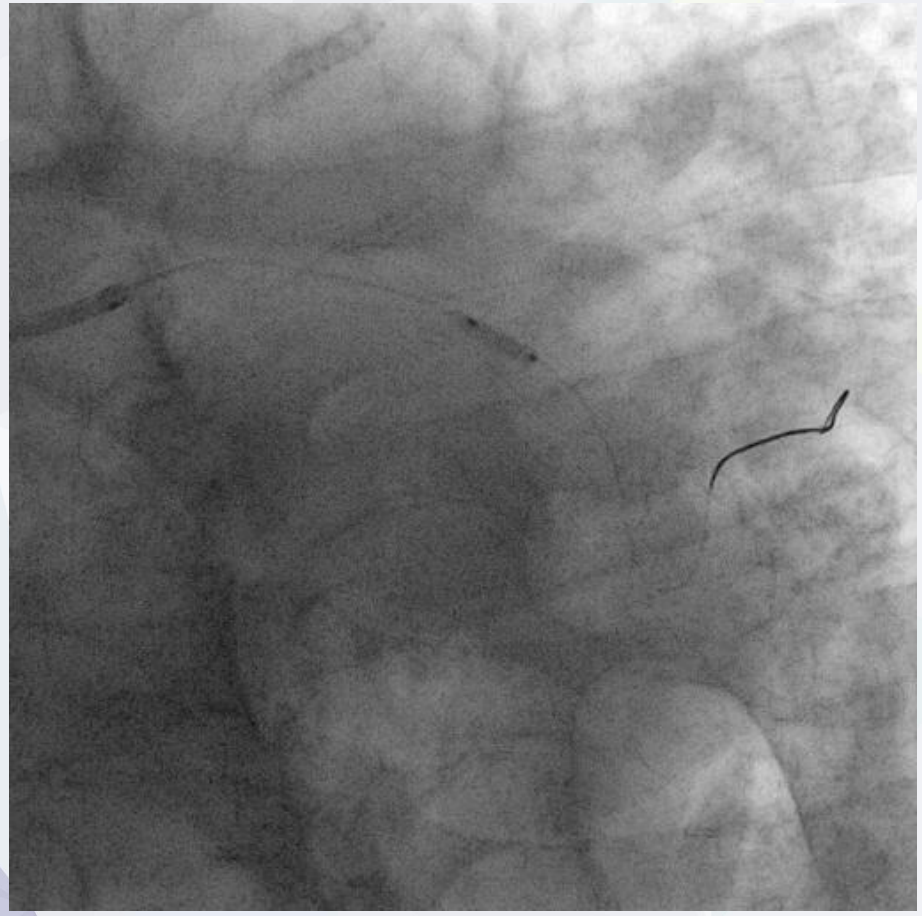
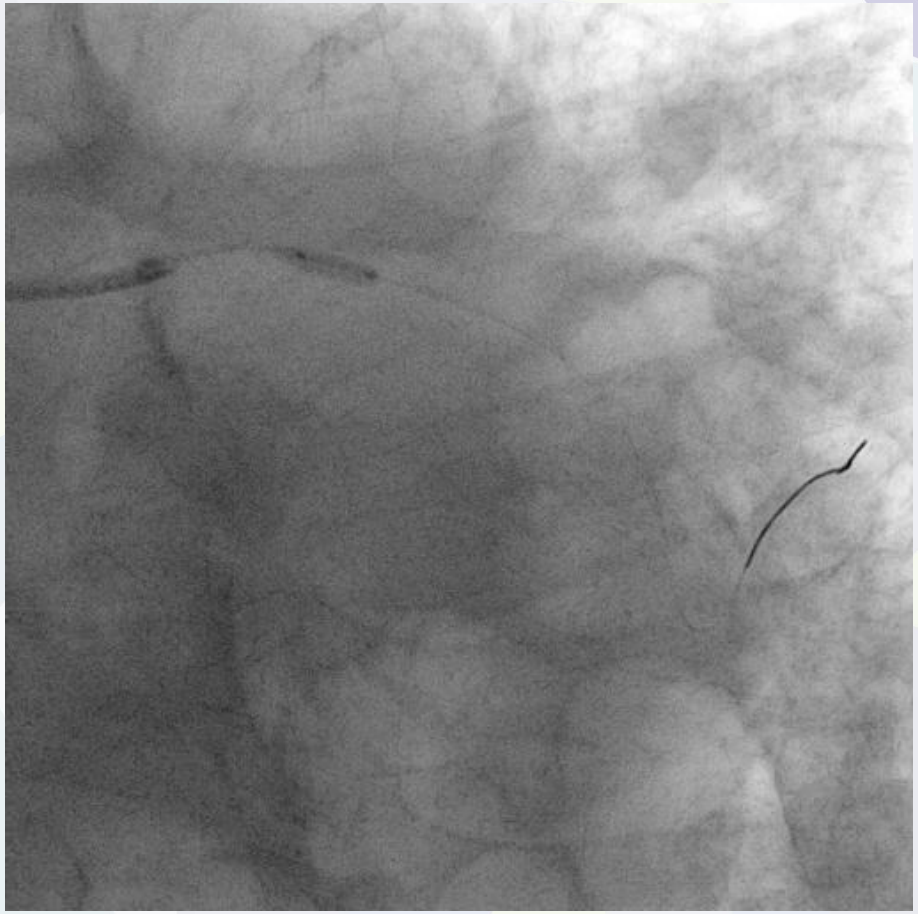




ICP sobre CX-OM

Dilatación con balón de corte de 2,25x6 mm a 12 atm.





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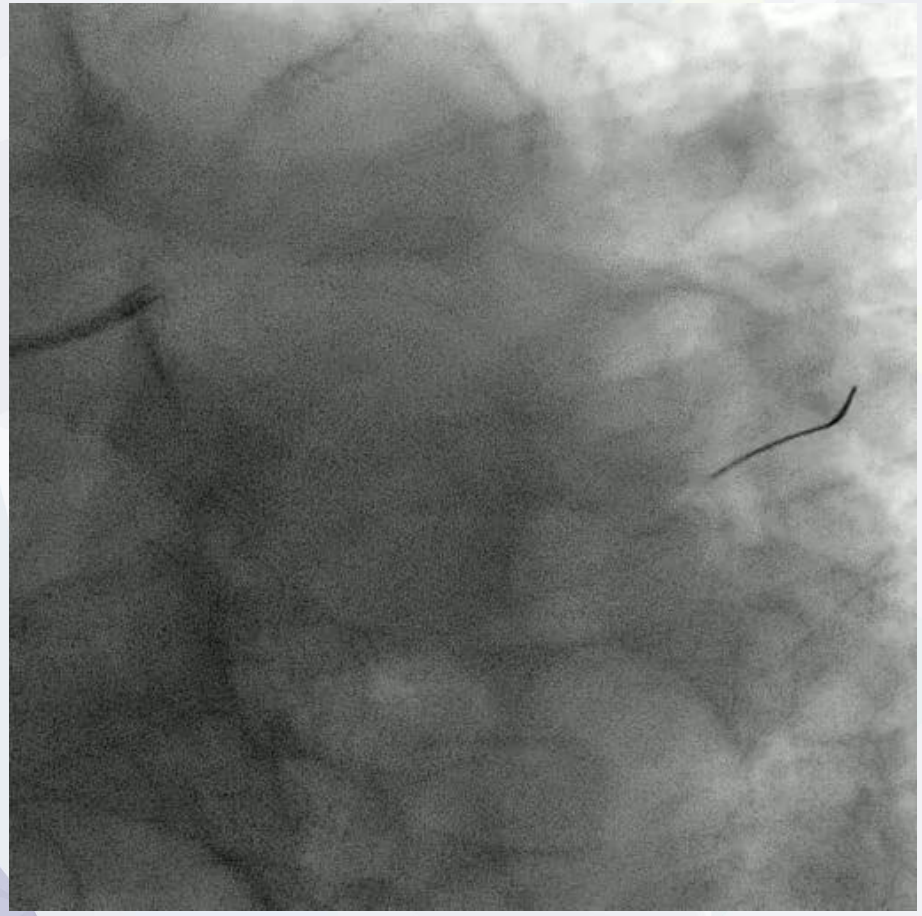
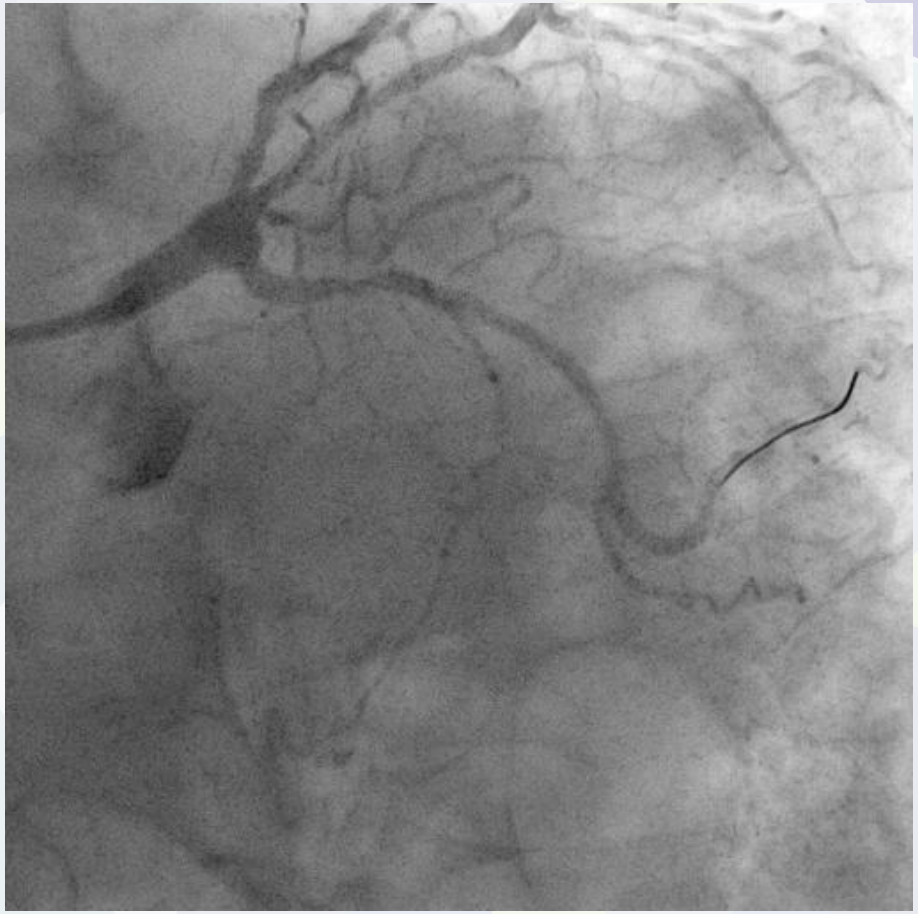
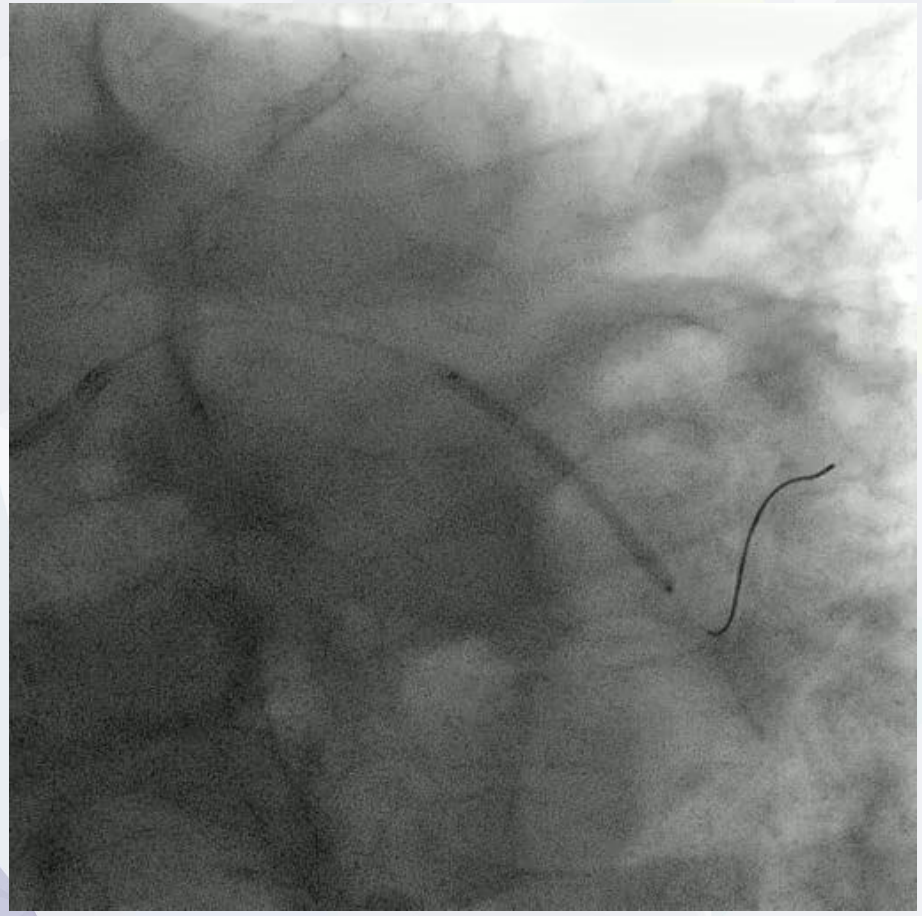
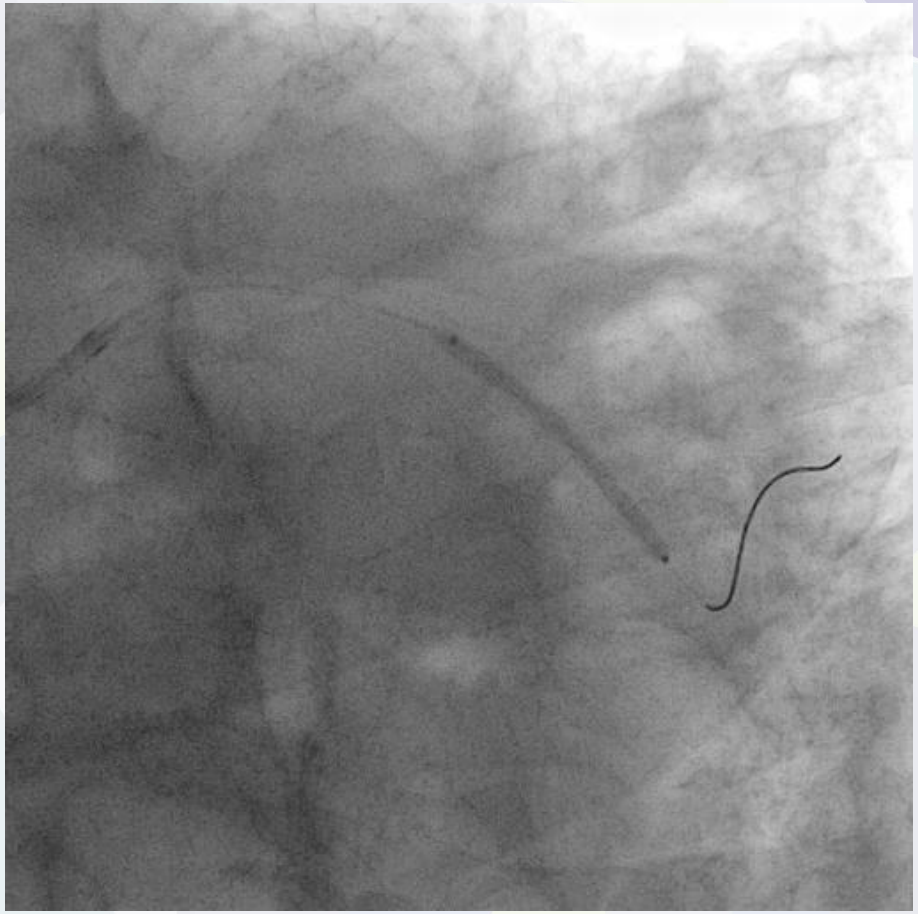




ICP sobre CX-OM

Dilatación con DCB Selution SLR de 2,25x30 mm a 7 atm durante 60 segundos.





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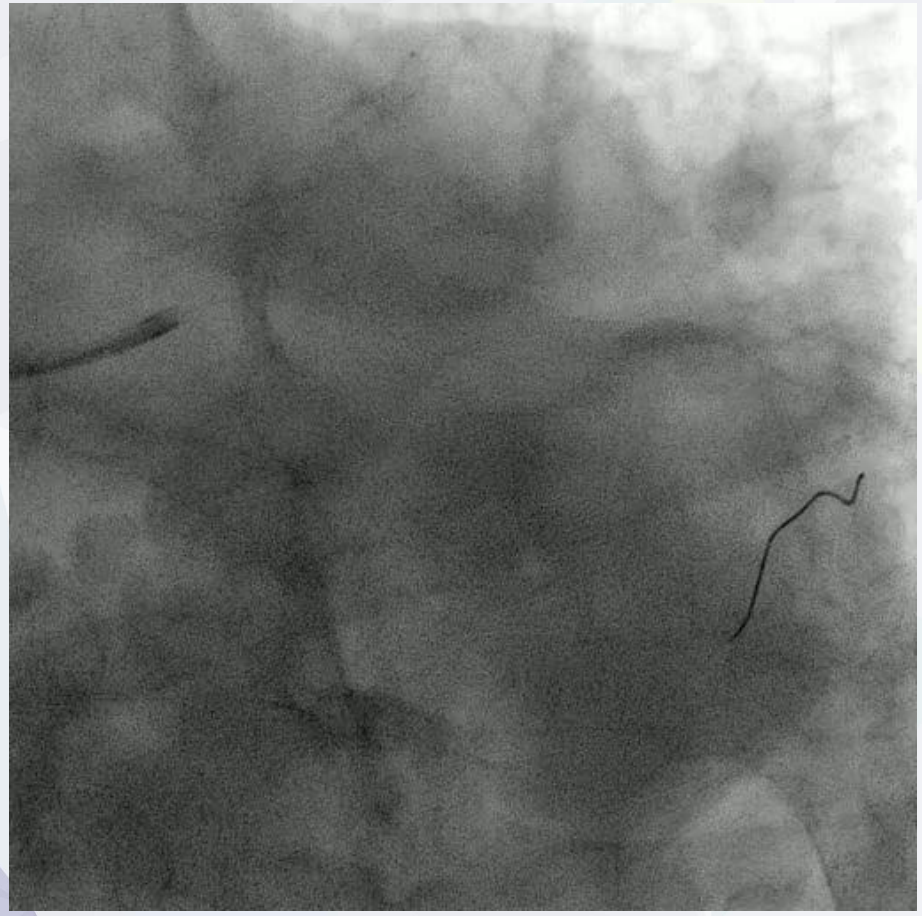
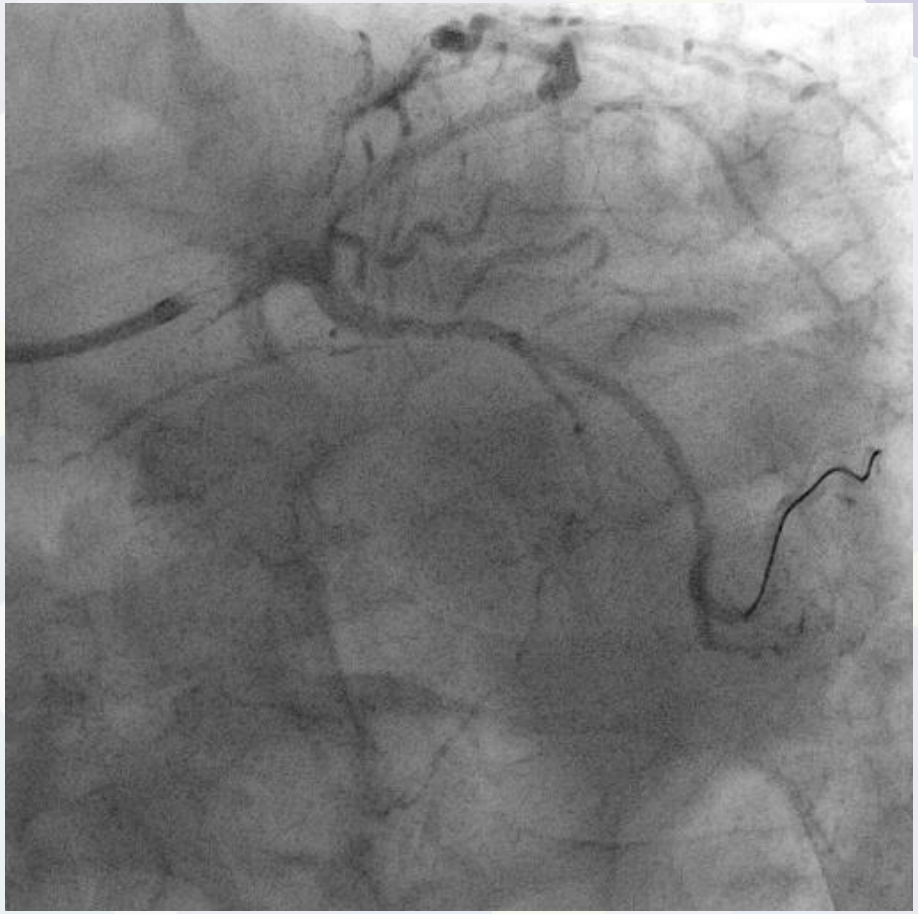
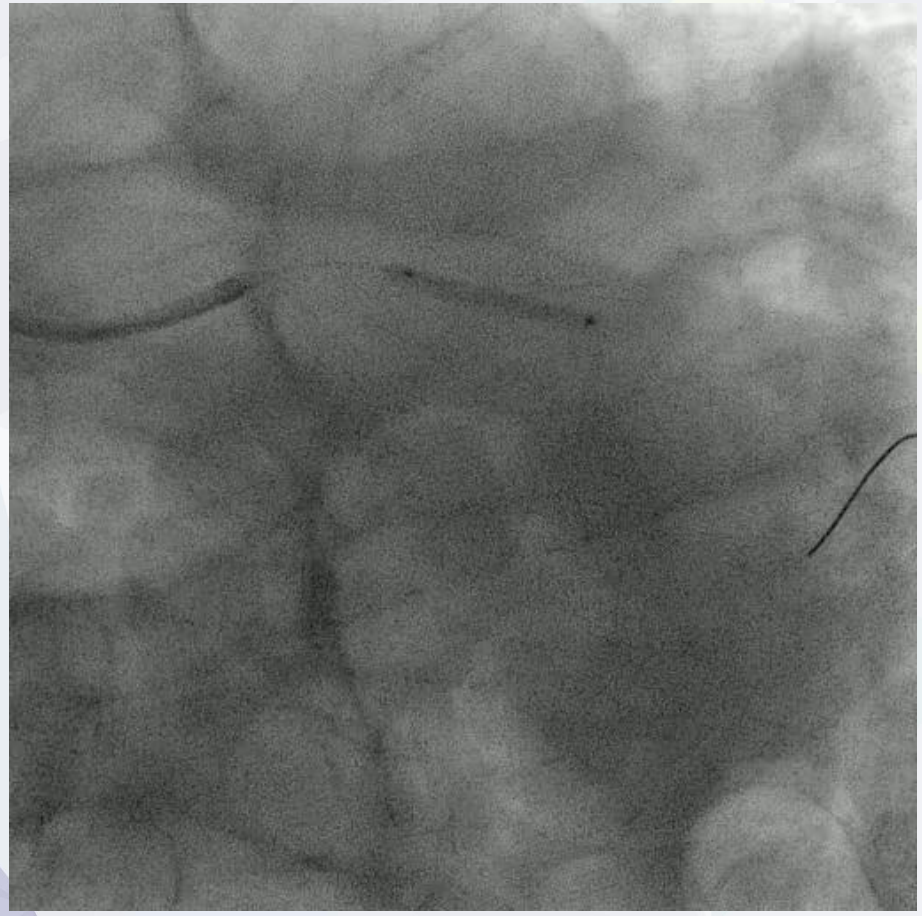
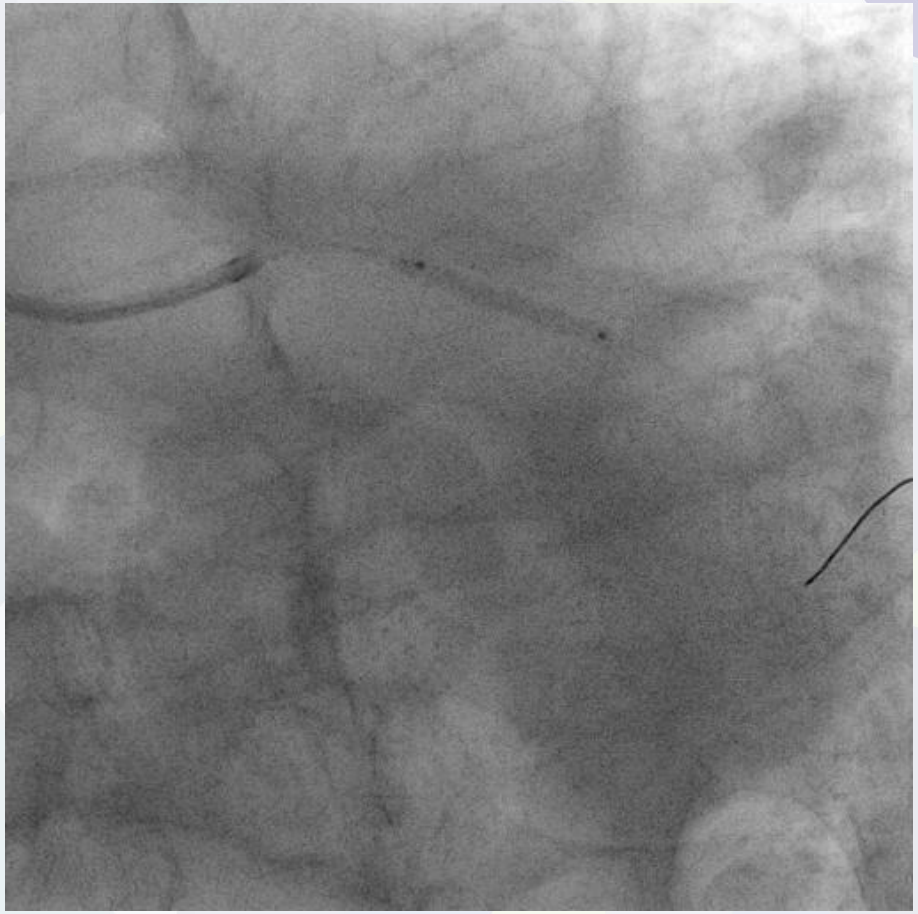




ICP sobre CX-OM

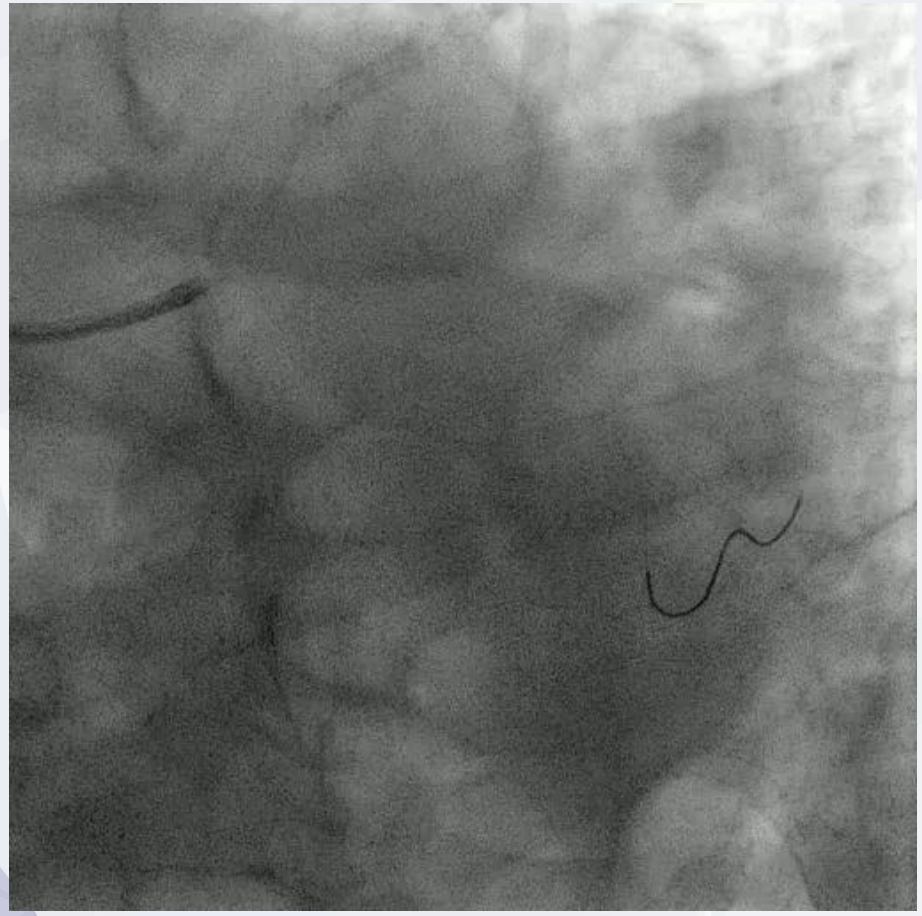
Dilatación con DCB Selution SLR de 2,5x20 mm a 7 atm durante 60 segundos.

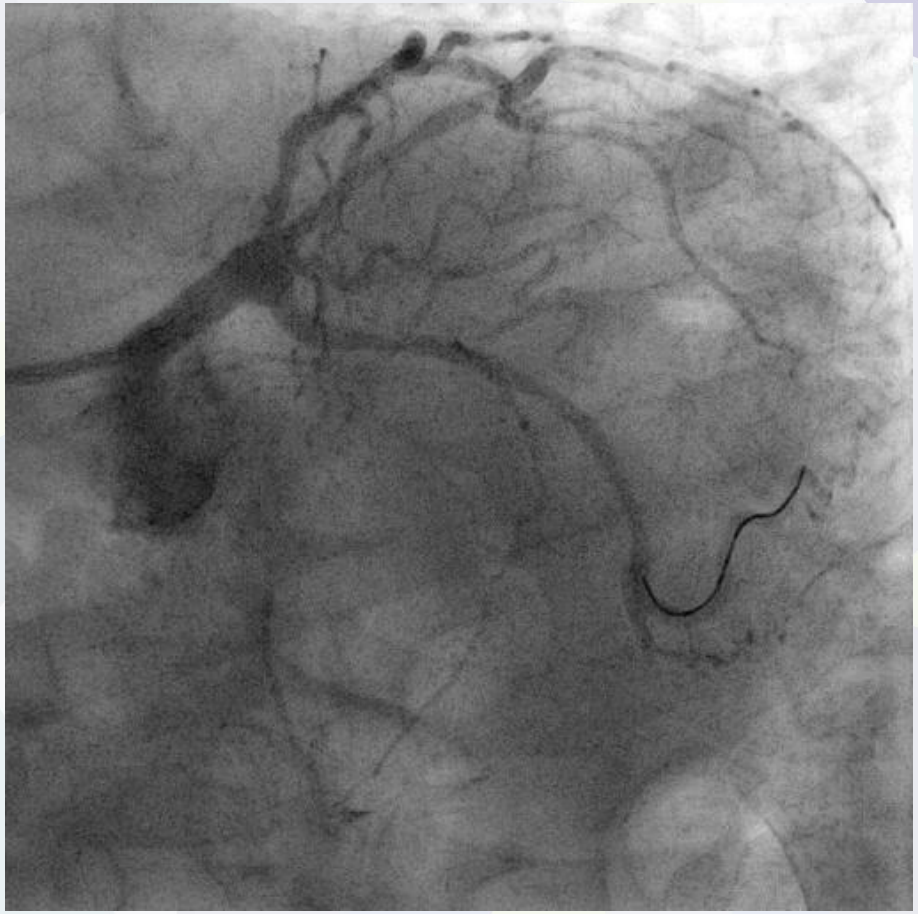




ICP sobre CX-OM

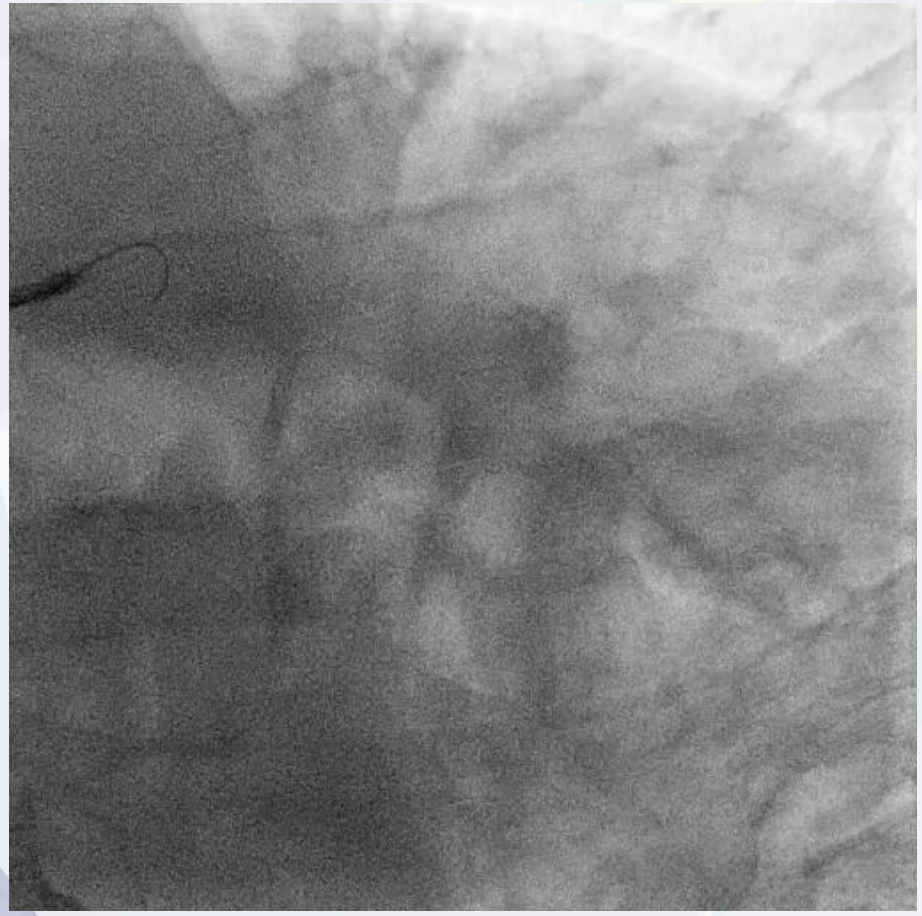
Dilatación con DCB Selution SLR de 2,5x20 mm a 7 atm durante 60 segundos.

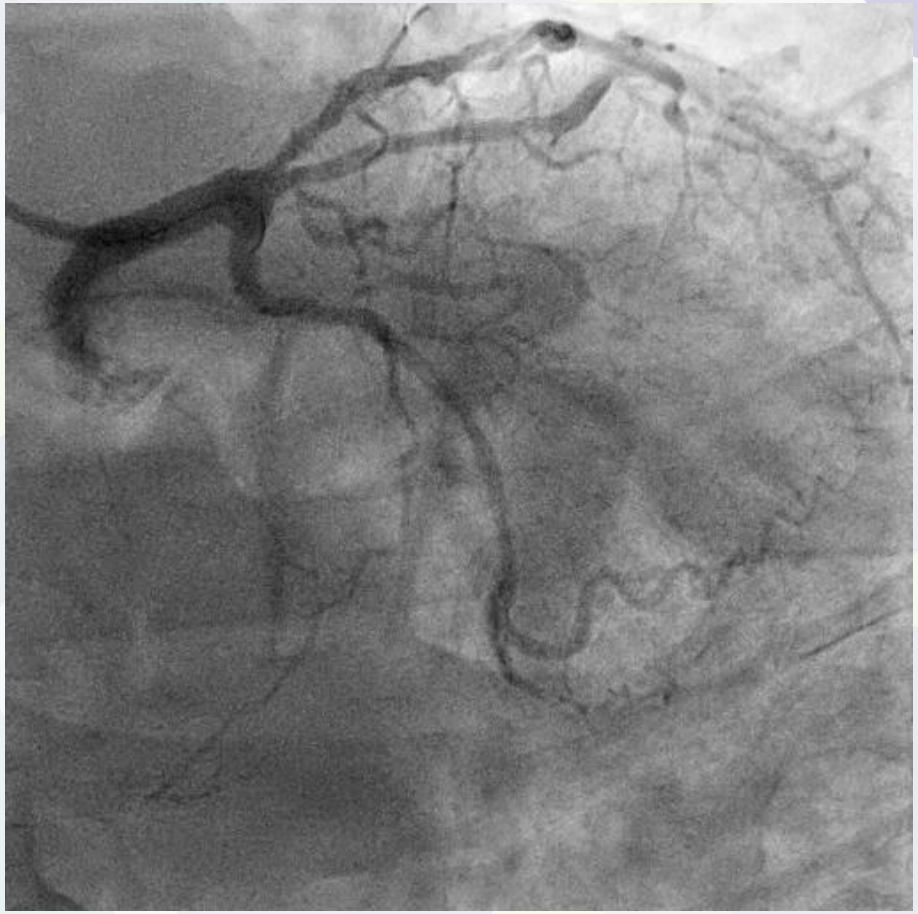




ICP sobre CX-OM

Resultado angiográfico.





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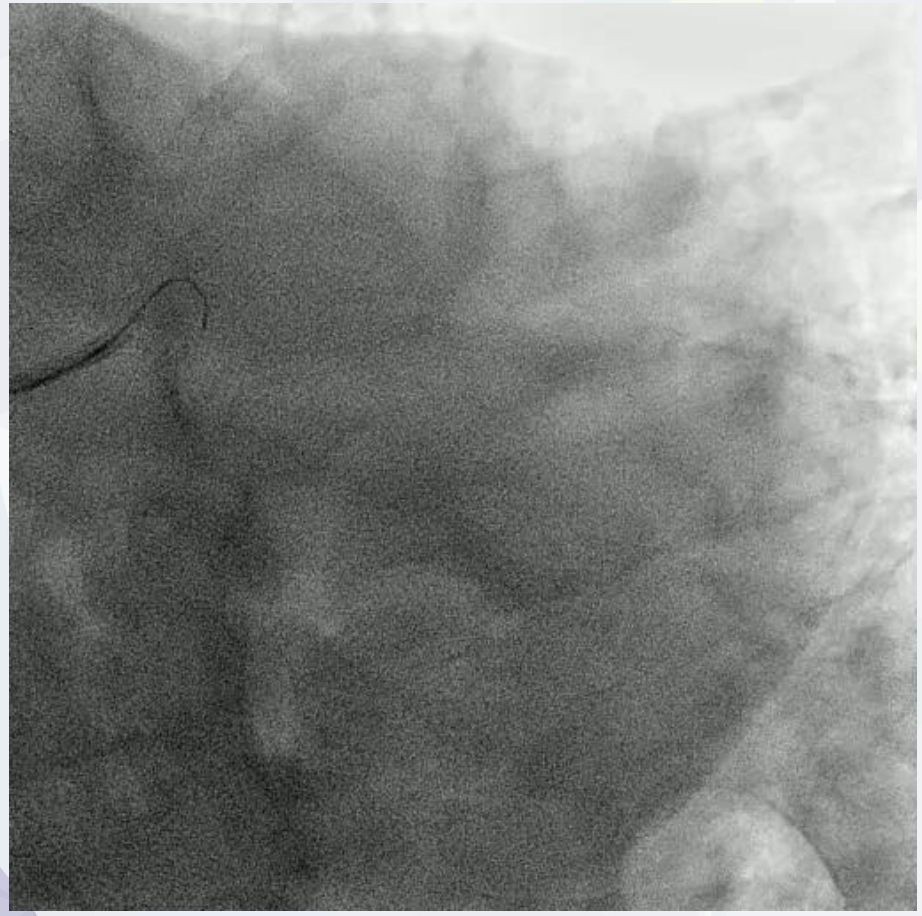


ICP sobre CX-OM

Resultado fisiológico con microcatéter de presión TruePhysio.

ICP sobre CX-OM

Resultado fisiológico con microcatéter de presión TruePhysio.

Tratamiento antitrombótico

Triple terapia antitrombótica con Apixaban 5mg/12h, AAS 100mg/24h y Clopidogrel 75mg/24h durante 1 semana.

Doble terapia antitrombótica con Apixaban 5mg/12h y Clopidogrel 75mg/24h durante 6-12 meses.

SCA con indicación de ACO

ESC European Society of Cardiology

European Heart Journal (2023) **44**, 3720–3826
https://doi.org/10.1093/eurheartj/ehad191

ESC GUIDELINES

2023 ESC Guidelines for the management of acute coronary syndromes

Developed by the task force on the management of acute coronary syndromes of the European Society of Cardiology (ESC)

SCA con indicación de ACO

Combining antiplatelets and OAC		
As the default strategy for patients with atrial fibrillation and CHA_2DS_2-VASc score ≥1 in men and ≥2 in women, after up to 1 week of triple antithrombotic therapy following the ACS event, dual antithrombotic therapy using a NOAC at the recommended dose for stroke prevention and a single oral antiplatelet agent (preferably clopidogrel) for up to 12 months is recommended.[305–310]	I	A
During PCI, a UFH bolus is recommended in any of the following circumstances: • if the patient is on a NOAC • if the INR is <2.5 in VKA-treated patients.	I	C
In patients with an indication for OAC with VKA in combination with aspirin and/or clopidogrel, careful regulation of the dose intensity of VKA with a target INR of 2.0–2.5 and a time in the therapeutic range >70% should be considered.[305–308,311]	IIa	B
When rivaroxaban is used and concerns about HBR prevail over ischaemic stroke, rivaroxaban 15 mg o.d. should be considered in preference to rivaroxaban 20 mg o.d. for the duration of concomitant SAPT or DAPT.[307]	IIa	B
In patients at HBR,[c] dabigatran 110 mg b.i.d. should be considered in preference to dabigatran 150 mg b.i.d. for the duration of concomitant SAPT or DAPT, to mitigate bleeding risk.[305]	IIa	B
In patients requiring anticoagulation and treated medically, a single antiplatelet agent in addition to an OAC should be considered for up to 1 year.[308,312]	IIa	B
In patients treated with an OAC, aspirin plus clopidogrel for longer than 1 week and up to 1 month should be considered in those with high ischaemic risk or with other anatomical/procedural characteristics that are judged to outweigh the bleeding risk.[e]	IIa	C
In patients requiring OAC, withdrawing antiplatelet therapy at 6 months while continuing OAC may be considered.[313]	IIb	B
The use of ticagrelor or prasugrel as part of triple antithrombotic therapy is not recommended.	III	C

Riesgo isquémico vs. hemorrágico

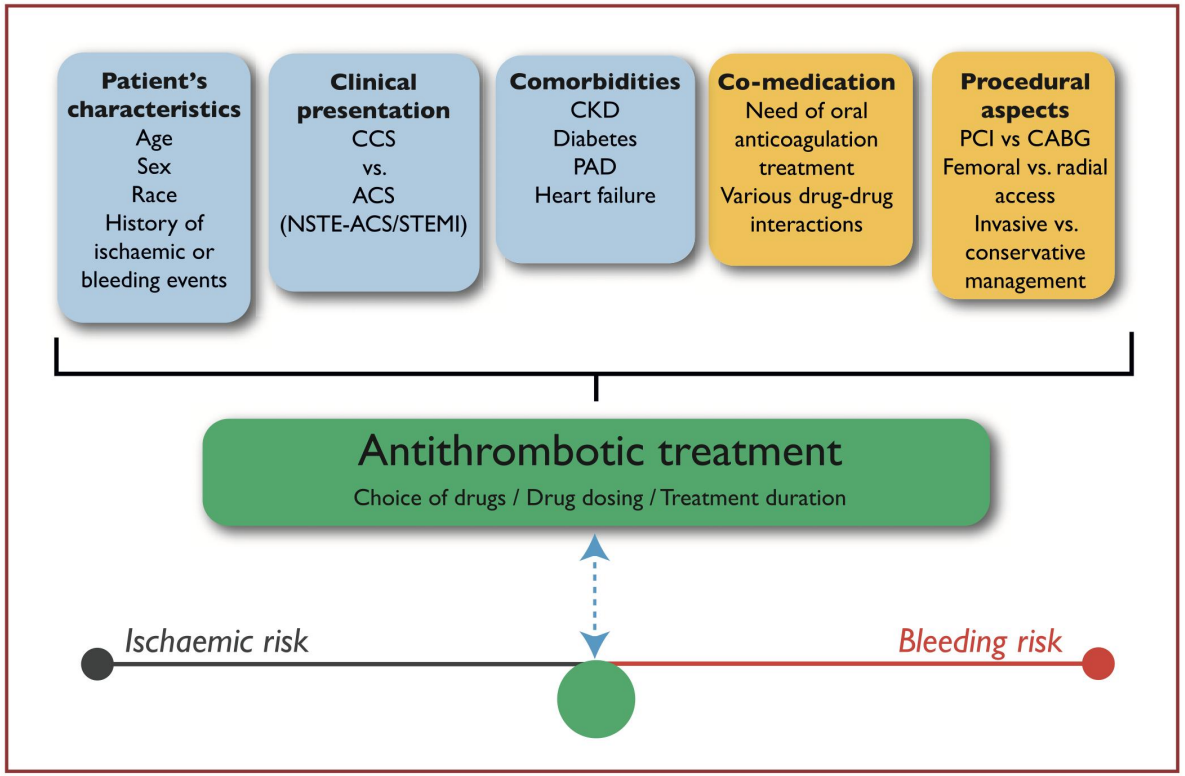


Figure 5 Determinants of antithrombotic treatment in coronary artery disease. Intrinsic (in blue: patient's characteristics, clinical presentation & comorbidities) and extrinsic (in yellow: co-medication & procedural aspects) variables influencing the choice, dosing, and duration of antithrombotic treatment. ACS = acute coronary syndromes; CABG = coronary artery bypass graft(ing); CCS = chronic coronary syndromes; CKD = chronic kidney disease; NSTE-ACS = non-ST-segment elevation acute coronary syndrome; PAD = peripheral artery disease; PCI = percutaneous coronary intervention; STEMI = ST-segment elevation myocardial infarction.

Riesgo isquémico vs. hemorrágico

Table S3 Thrombotic/ischaemic risk criteria for extended intensified antithrombotic therapy

Ischaemic risk criteria
Complex or non-complex epicardial CAD and at least one of the following:
Risk enhancers
DM requiring medication
History of recurrent MI
Polyvascular disease (CAD plus PAD)
Any multivessel CAD
Premature (<45 years) or accelerated (new lesion within a 2-year time frame) CAD
Concomitant systemic inflammatory and/or prothrombotic disease (e.g. HIV, systemic lupus erythematosus, chronic arthritis, antiphospholipid syndrome)
Procedural or stent-related aspects
At least 3 stents implanted
At least 3 lesions treated
Total stent length >60 mm
History of complex revascularization (left main, bifurcation stenting with ≥2 stents implanted, chronic total occlusion, stenting of last patent vessel)
History of stent thrombosis on antiplatelet treatment

ARC-HBR, Academic Research Consortium for High Bleeding Risk; CAD, coronary artery disease; DAPT, dual antiplatelet therapy; DM, diabetes mellitus; HIV, human immunodeficiency virus; MI, myocardial infarction; PAD, peripheral artery disease; PRECISE-DAPT, PREdicting bleeding Complications In patients undergoing Stent implantation and subsEquent Dual Anti Platelet Therapy.
Stratification of patients towards complex vs. non-complex CAD is based on individual clinical judgment with knowledge of patients' cardiovascular history and/or coronary anatomy.

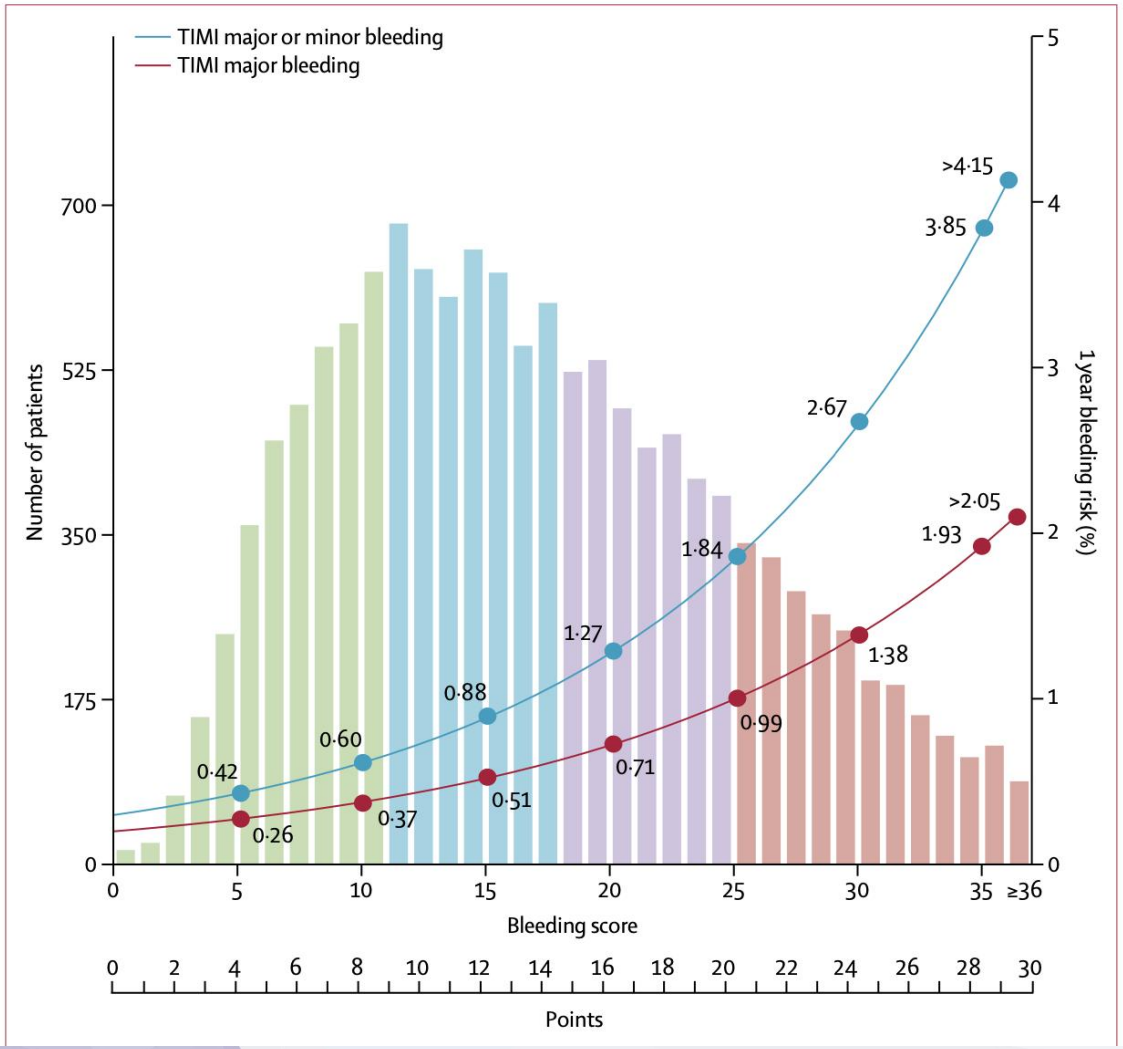
Riesgo isquémico vs. hemorrágico

Table S2 **Criteria for high bleeding risk according to the PRECISE-DAPT score or the Academic Research Consortium for High Bleeding Risk (HBR)**

Patients are considered at HBR if at least 1 major or 2 minor criteria are met	
Major PRECISE-DAPT criterion	
Score ≥25[a]	
Major ARC-HBR criteria[b]	**Minor ARC-HBR criteria[c]**
Anticipated use of long-term OAC	Age >75 years
Severe or end-stage CKD (eGFR < 30 mL/min/1.73 m^2)	Moderate CKD (eGFR 30–59 mL/min/1.73 m^2)
Haemoglobin <11 g/dL	Haemoglobin 11–12.9 g/dL for men or 11–11.9 g/dL for women
Spontaneous bleeding requiring hospitalization and/or transfusion in the past 6 months or at any time, if recurrent	Spontaneous bleeding requiring hospitalization and/or transfusion within the past 12 months not meeting the major criterion
Moderate or severe baseline thrombocytopenia (platelet count <100 × 10^9/L)	
Chronic bleeding diathesis	Chronic use of oral non-steroidal anti-inflammatory drugs or steroids
Liver cirrhosis with portal hypertension	Any ischaemic stroke at any time not meeting the major criterion
Active malignancy (excluding non-melanoma skin cancer) within the past 12 months	
Previous spontaneous intracranial haemorrhage (at any time)	
Previous traumatic intracranial haemorrhage within the past 12 months	
Presence of a brain arteriovenous malformation	
Moderate or severe ischaemic stroke within the past 6 months	
Recent major surgery or major trauma within 30 days prior to PCI	
Non-deferrable major surgery on DAPT	

ARC-HBR, Academic Research Consortium for High Bleeding Risk; CKD, chronic kidney disease; DAPT, dual antiplatelet therapy; eGFR, estimated glomerular filtration rate; OAC, oral anticoagulant; PCI, percutaneous coronary intervention; PRECISE-DAPT, PREdicting bleeding Complications In patients undergoing Stent implantation and subsEquent Dual Anti Platelet Therapy.
[a]Calculation of the PRECISE-DAPT score involves five items (age, haemoglobin, white blood cell count, history of spontaneous bleeding, creatinine clearance), and the upper quartile (≥25) is associated with high bleeding risk while on dual antiplatelet treatment.
[b]Major criterion for ARC-HBR includes clinical diagnoses that confer Bleeding Academic Research Consortium (BARC) 3 or 5 bleeding risk ≥4% at 1 year or a risk of intracranial haemorrhage of ≥1% at 1 year.
[c]Minor criterion for ARC-HBR is defined as any criterion that, in isolation, is considered to confer increased bleeding risk, with a BARC 3 or 5 bleeding rate of <4% at 1 year.

Riesgo isquémico vs. hemorrágico



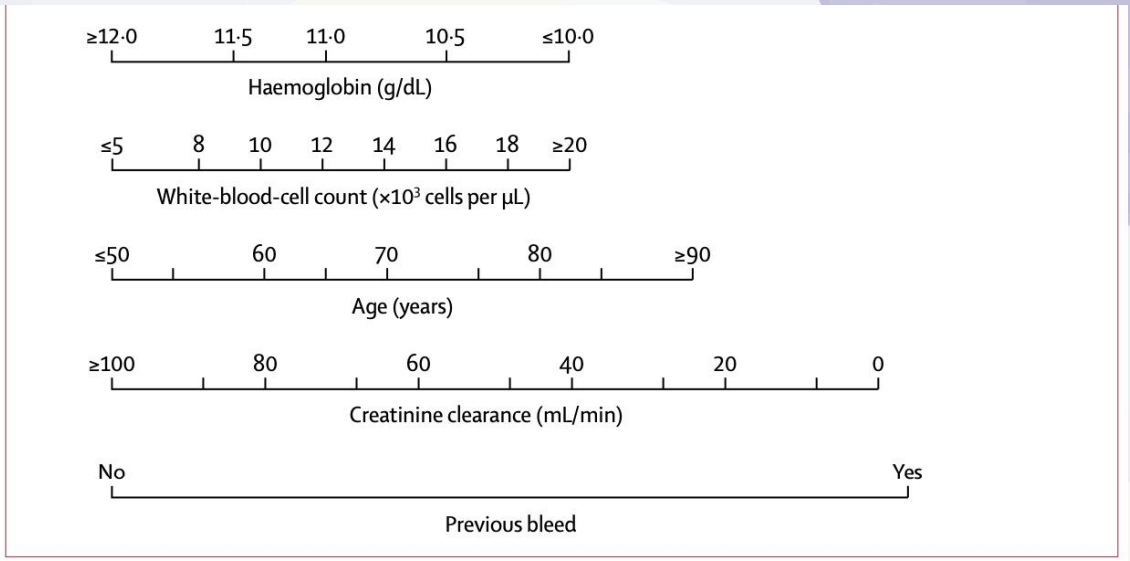


Figure 1: **The PRECISE-DAPT score nomogram for bedside application**
Risk curves refer to out-of-hospital Thrombosis in Myocardial Infarction (TIMI) major or minor bleeding and TIMI major bleeding at 12 months while on-treatment with dual antiplatelet therapy (DAPT). Histogram refers to the PRECISE-DAPT score distribution in the derivation cohort: green bars, the first score quartile (very low risk); blue bars, the second score quartile (low risk); purple bars, the third score quartile (moderate risk); and red bars, the fourth score quartile (high risk).

Costa F, et al. Lancet 2017;389(10073):1025-1034.

Riesgo isquémico vs. hemorrágico

PRECISEDAPT

Home | WebCalculator | Disclaimer | About | Contact Us

Haemoglobin unit
12.7 g/dl / mmol/L

Age (years)
75

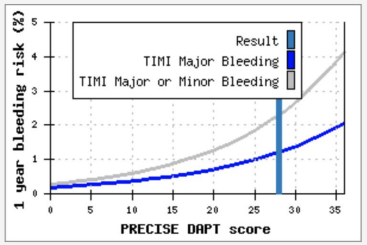
White blood cells unit
7600 u/mcL / 10^9/L

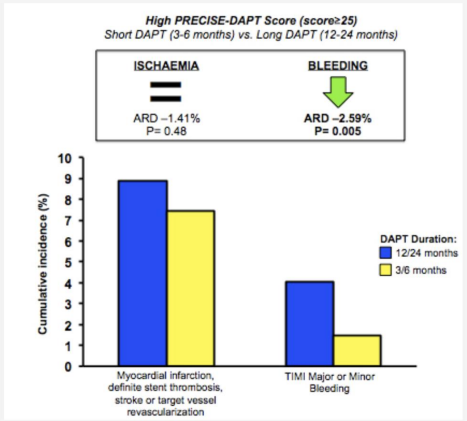
Creatinine Clearance (ml/min)
47

Prior Bleeding

CALCULATE

RESET





In patients with high PRECISE-DAPT score (Score>=25) a short DAPT (3-6 months) as compared with a long DAPT (12-24 months) was associated with lower TIMI major and minor bleeding and similar rate of the composite ischemic endpoint.

RESULT:

Cluster of risk:

High

Score Calculated

28

12 months risk of TIMI major or minor Bleeding

2.3%

12 months risk of TIMI Major Bleeding

1.2%

Copy to clipboard

Riesgo isquémico vs. hemorrágico

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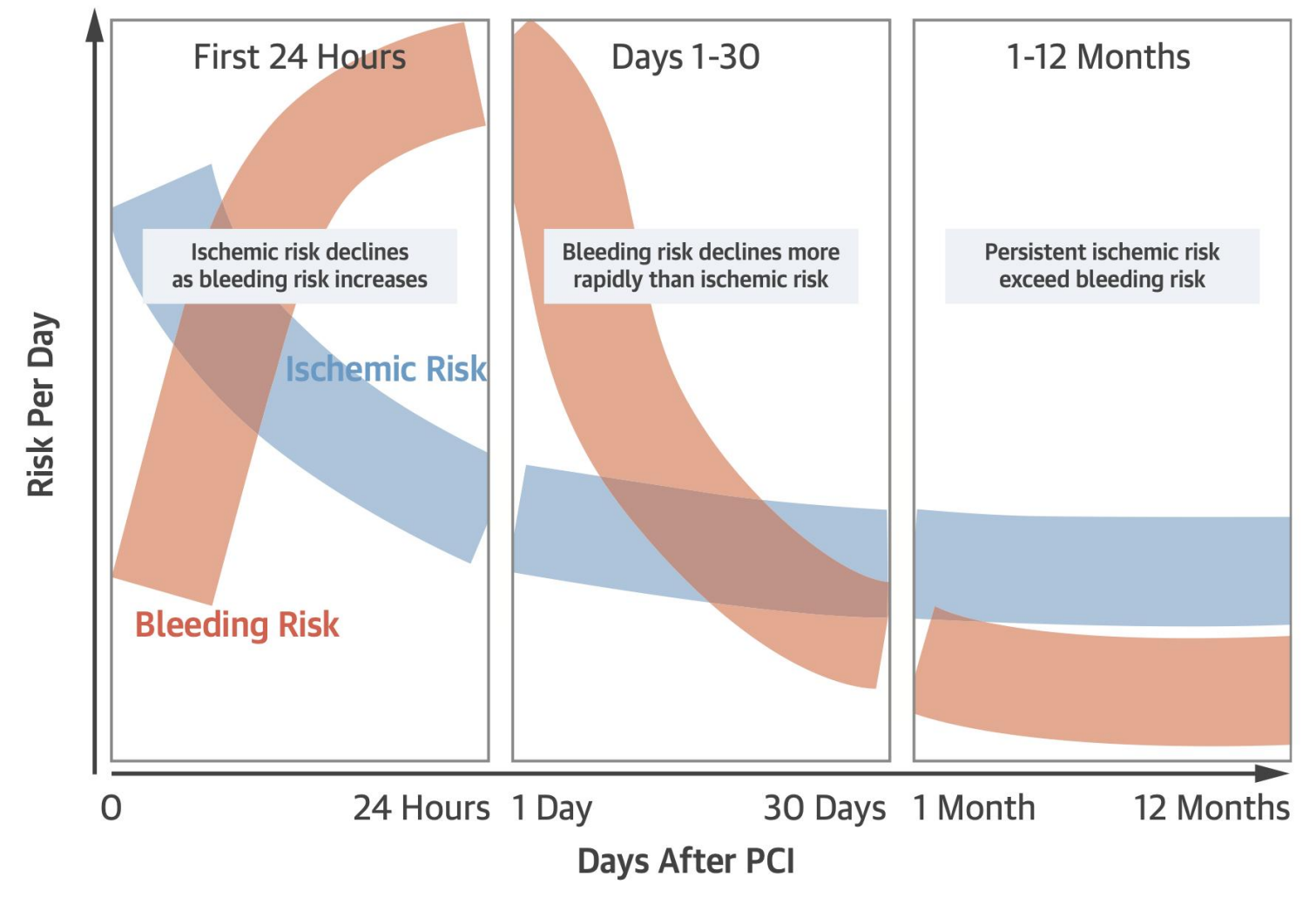
Non-deferrable major surgery on DAPT	

ARC-HBR, Academic Research Consortium for High Bleeding Risk; CKD, chronic kidney disease; DAPT, dual antiplatelet therapy; eGFR, estimated glomerular filtration rate; OAC, oral anticoagulant; PCI, percutaneous coronary intervention; PRECISE-DAPT, PREdicting bleeding Complications In patients undergoing Stent implantation and subsEquent Dual Anti Platelet Therapy.
[a]Calculation of the PRECISE-DAPT score involves five items (age, haemoglobin, white blood cell count, history of spontaneous bleeding, creatinine clearance), and the upper quartile (≥25) is associated with high bleeding risk while on dual antiplatelet treatment.
[b]Major criterion for ARC-HBR includes clinical diagnoses that confer Bleeding Academic Research Consortium (BARC) 3 or 5 bleeding risk ≥4% at 1 year or a risk of intracranial haemorrhage of ≥1% at 1 year.
[c]Minor criterion for ARC-HBR is defined as any criterion that, in isolation, is considered to confer increased bleeding risk, with a BARC 3 or 5 bleeding rate of <4% at 1 year.

Riesgo isquémico vs. hemorrágico



Chew DP, et al. J Am Coll Cardiol 2017;70(15):1858-1860.

Gracias por su atención.