

Papel da Cineangiocoronariografia na Abordagem do Infarto



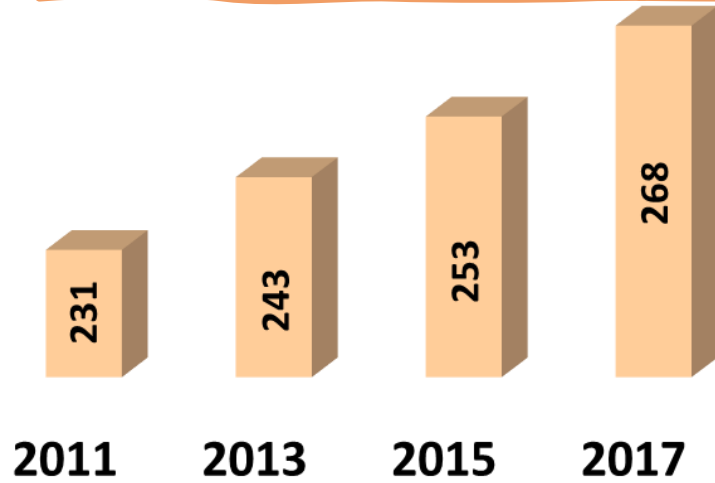
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 - Prof. Livre Docente pela Faculdade de Medicina da Universidade de São Paulo (USP)
- Ex-Presidente da Sociedade Brasileira (SBHCI) e Latino-americana de Cardiologia Intervencionista (SOLACI)

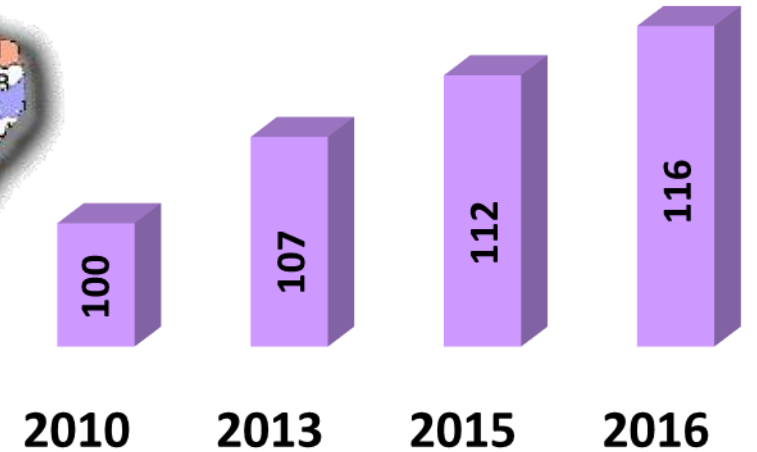
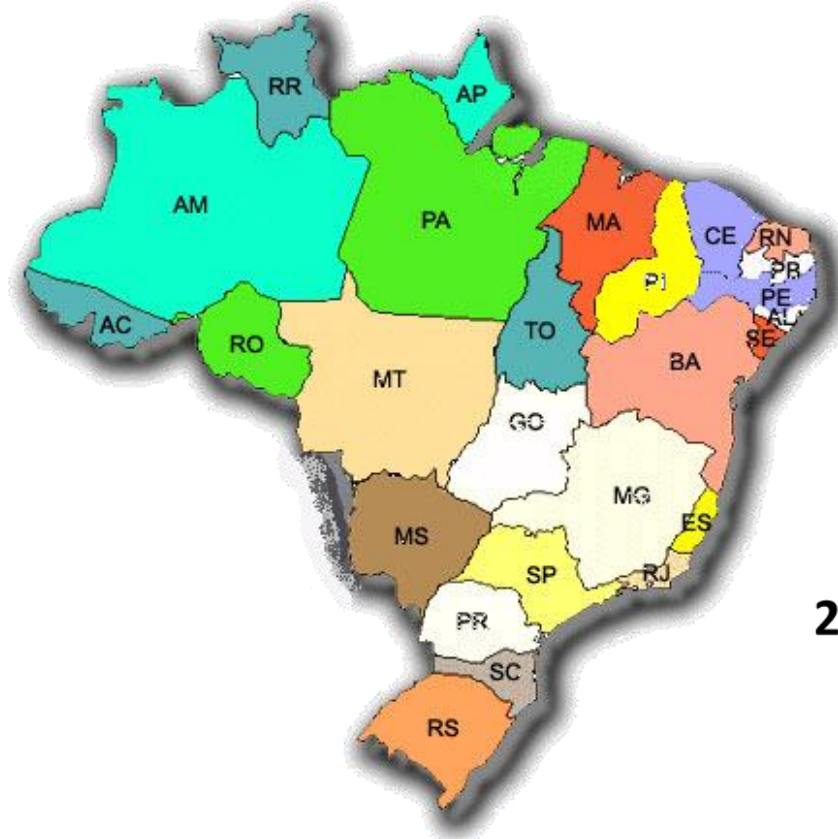
 @EquipeMangione

Cenário da SCA

Brasil



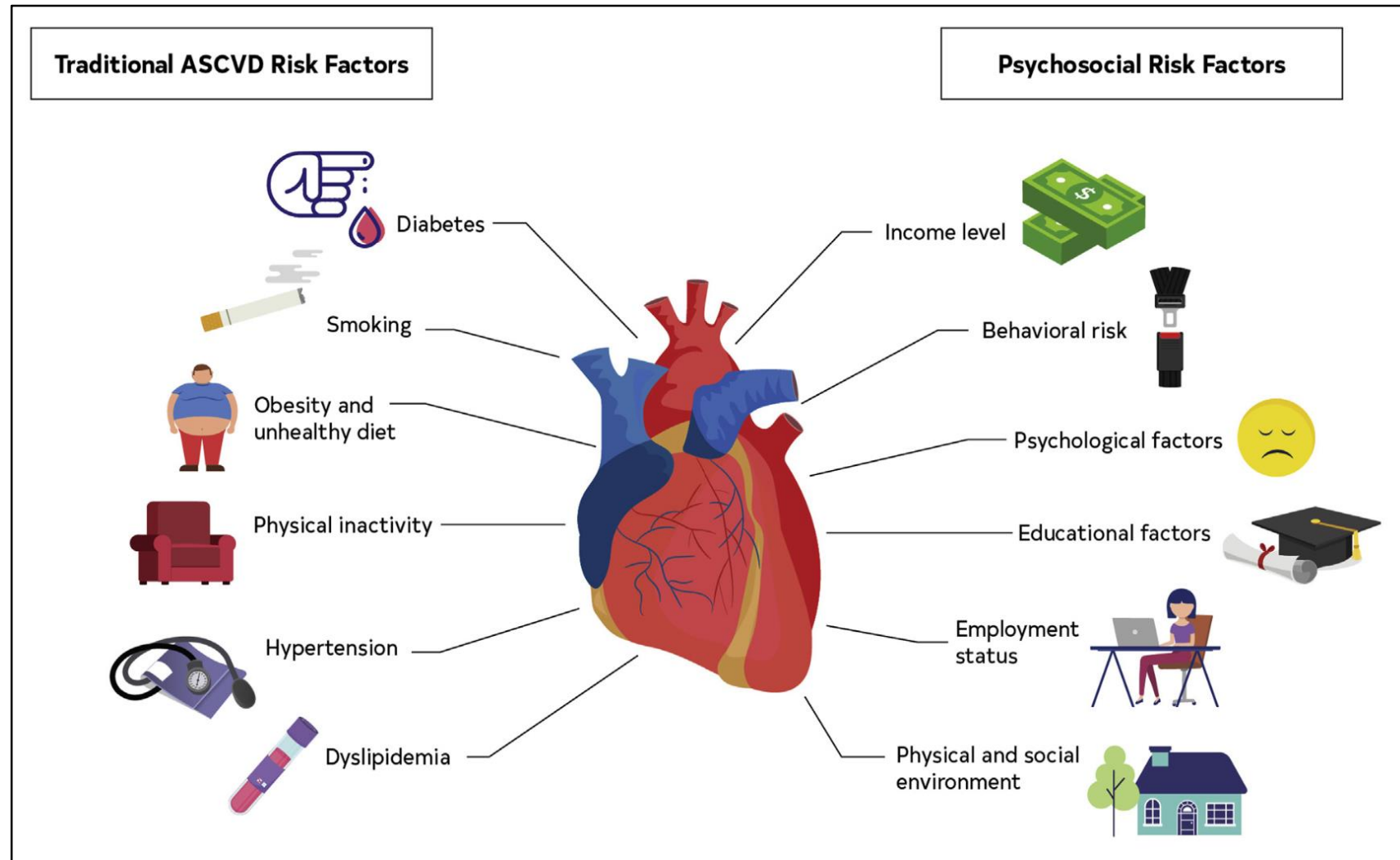
Internações SUS por SCA *
↑ 15,7 % em 6 anos



Total de óbitos por SCA *
↑ 16% em 6 anos

Doença Cardiovascular

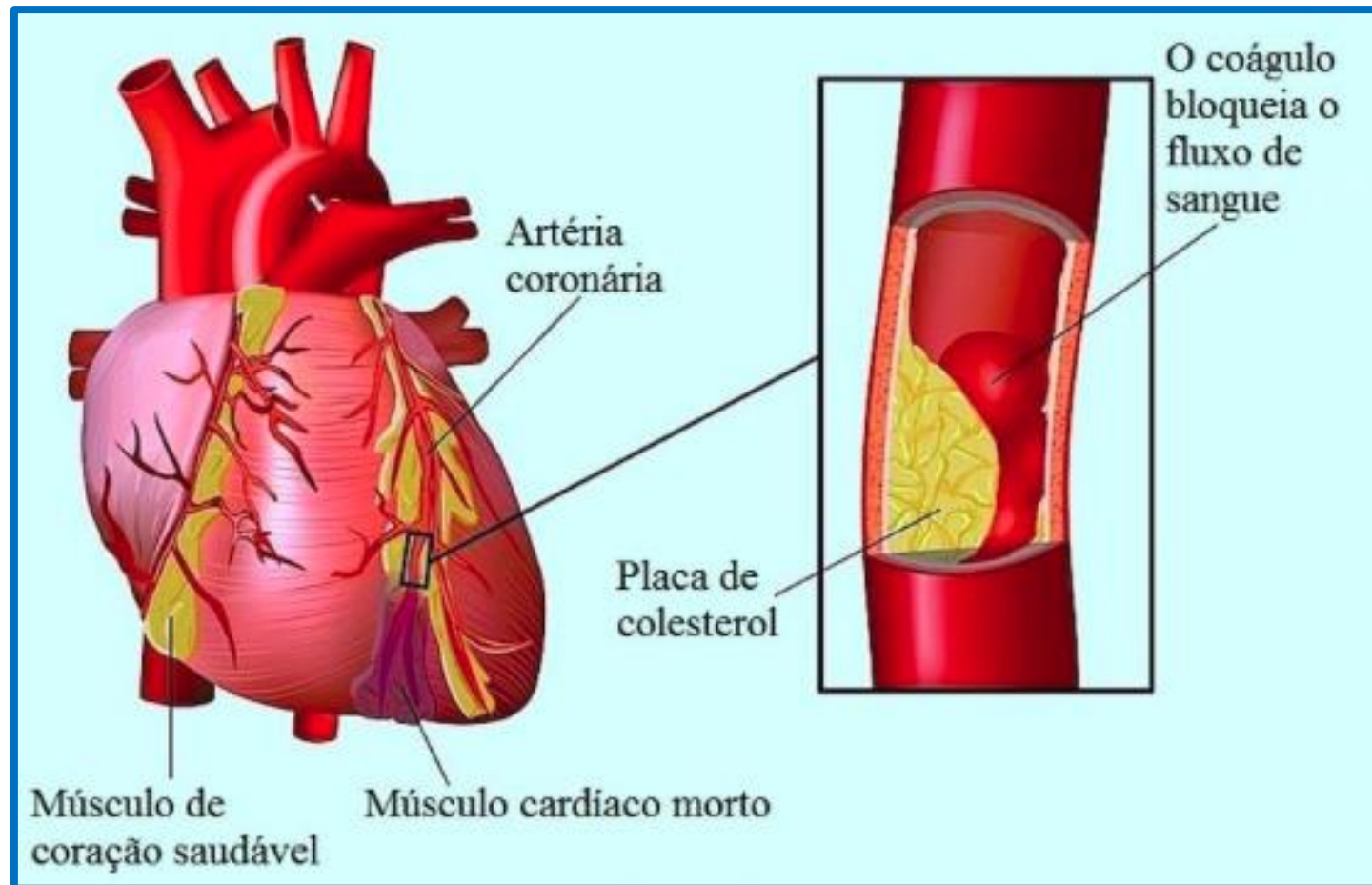
Fatores de risco



Infarto Agudo do Miocárdio

Causas

- I-Principal
Aterosclerose Coronária



Infarto Agudo do Miocárdio

Fisiopatologia

Ruptura da Placa Aterosclerótica



Trombose



Interrupção do Fluxo Sanguíneo



Alteração Severa e Persistente entre a Oferta e o Consumo de O₂

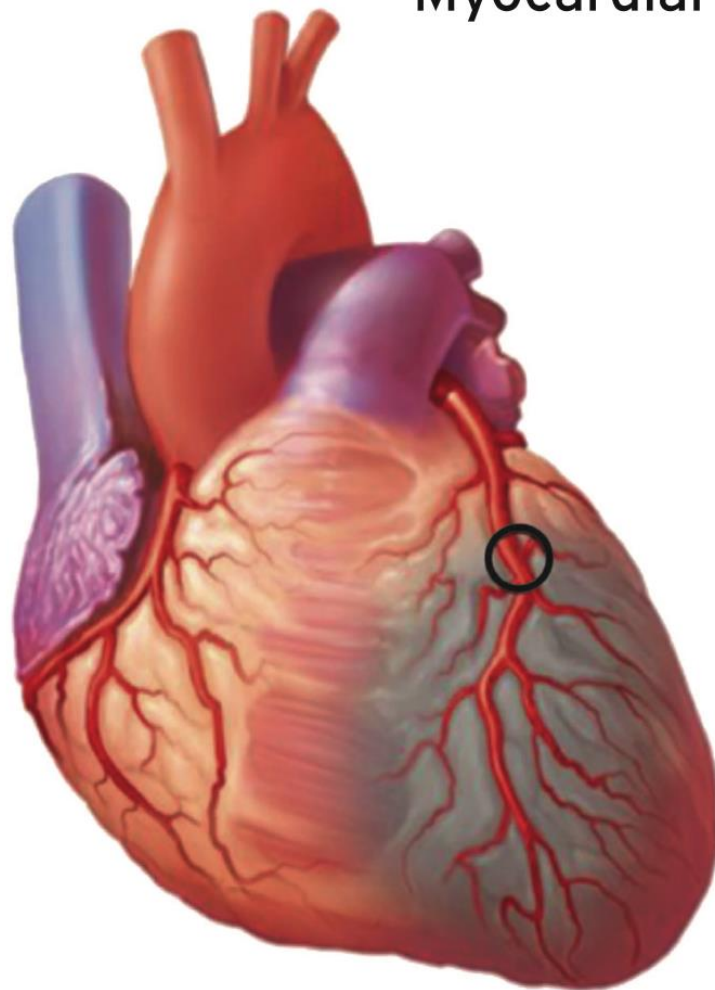


Necrose Miocárdica

Infarto Agudo
do Miocárdio

Fisiopatologia

Myocardial Infarction



Plaque rupture/erosion with
occlusive thrombus

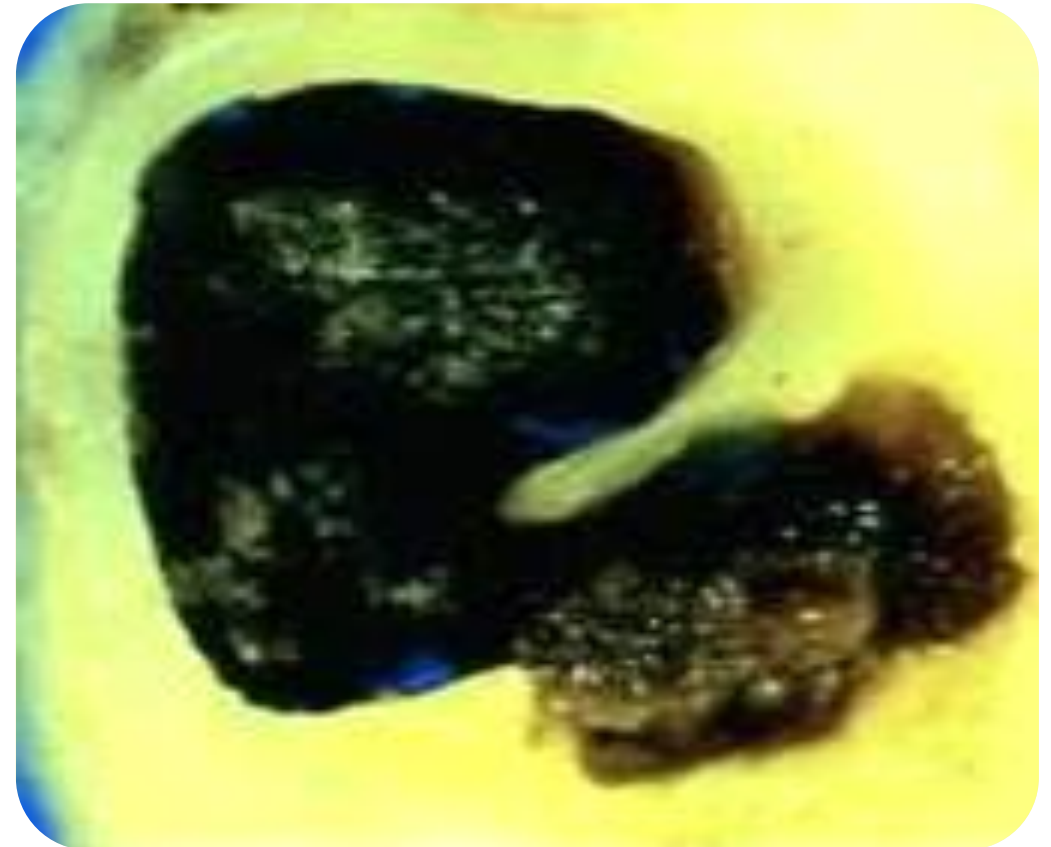


Plaque rupture/erosion with
non-occlusive thrombus

Infarto Agudo do Miocárdio

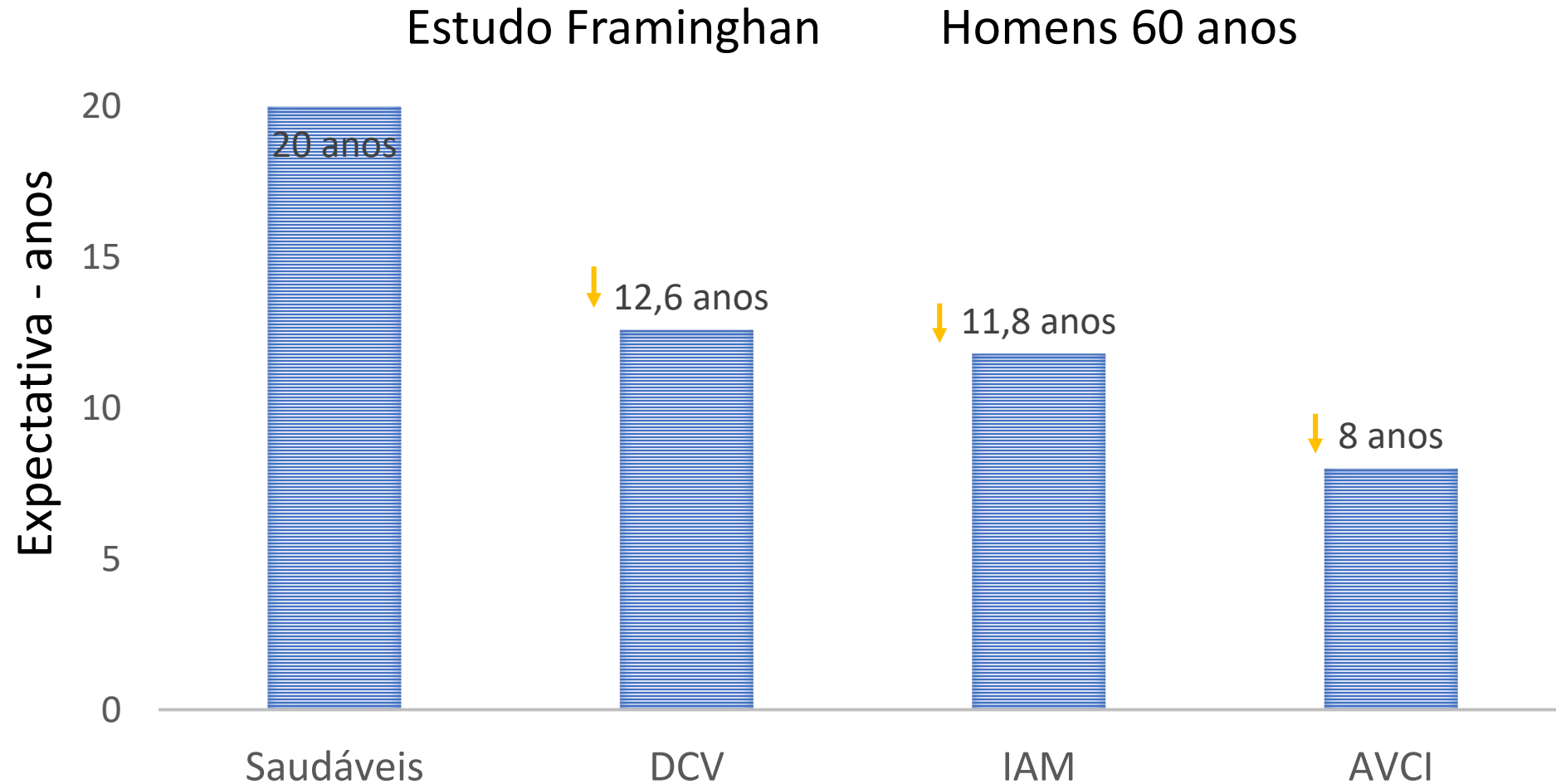
Fisiopatologia

Ruptura da Placa com formação de trombo luminal



Aterotrombose

Expectativa de Vida



Infarto Agudo do Miocárdio

Dados Clínicos

- Dor precordial

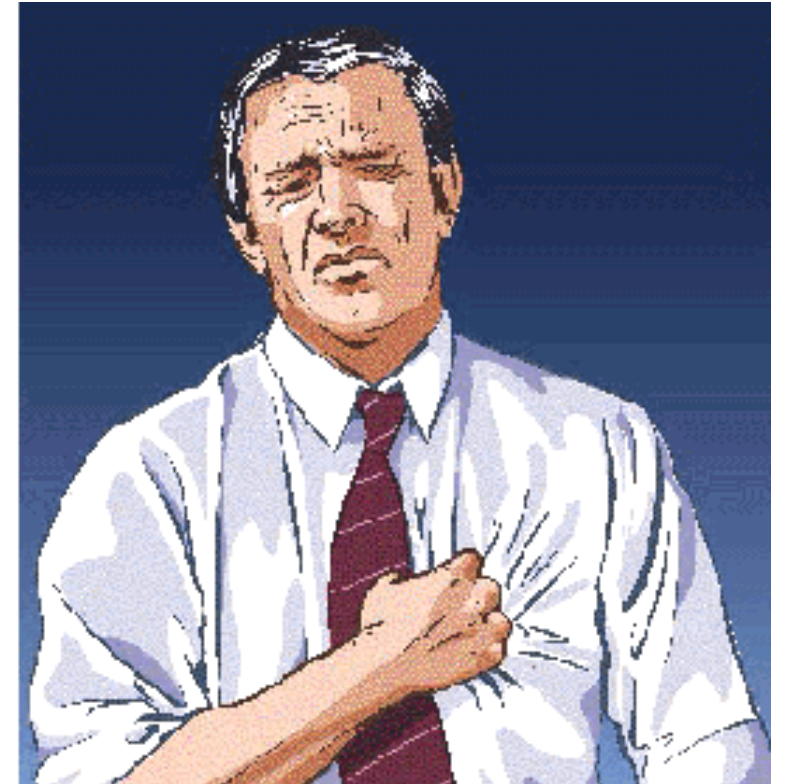
Em repouso ou leve atividade física

- Intensidade

Variável (na maioria forte e em alguns casos intolerável)

- Duração

Prolongada > 30 m



Infarto Agudo do Miocárdio

Dados Clínicos

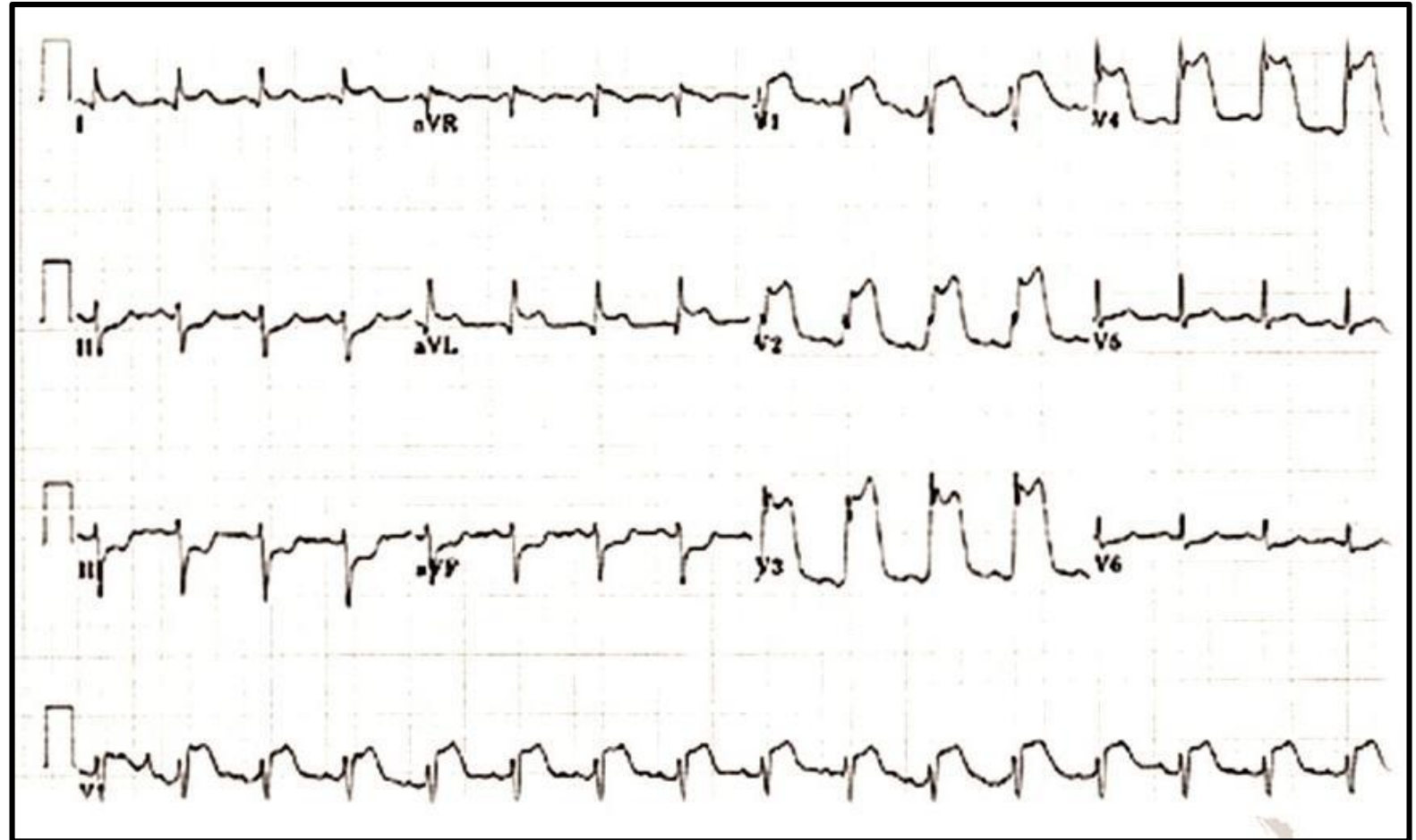
Normalmente retroesternal, irradiando-se principalmente p/ o lado esquerdo do tórax e braço E pelo lado ulnar atingindo até o punho, mãos e dedos

Sintomas podem estar acompanhados de sudorese, náuseas e vômitos

Alguns casos – dor epigástrica, ombros, pescoço, mandíbula e região interescapular

Infarto Agudo do Miocárdio

Eletrocardiograma



Infarto Agudo do Miocárdio

*Exames de
Laboratório*

CKMB – Massa

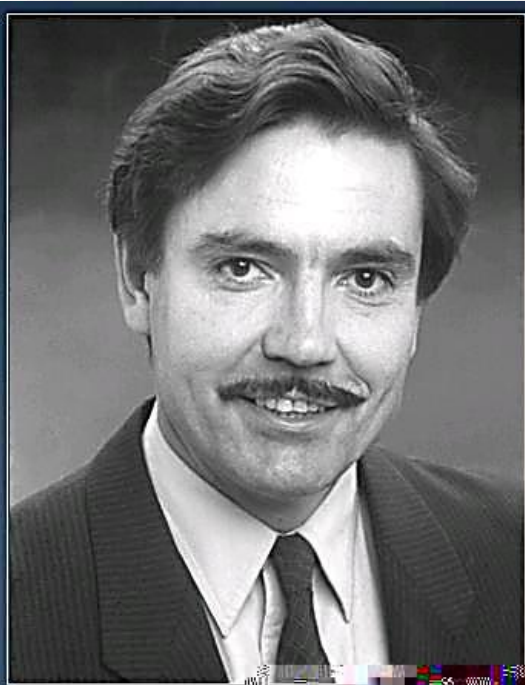
Enzima requerida para produção de energia

Troponina

Proteínas Funcionais

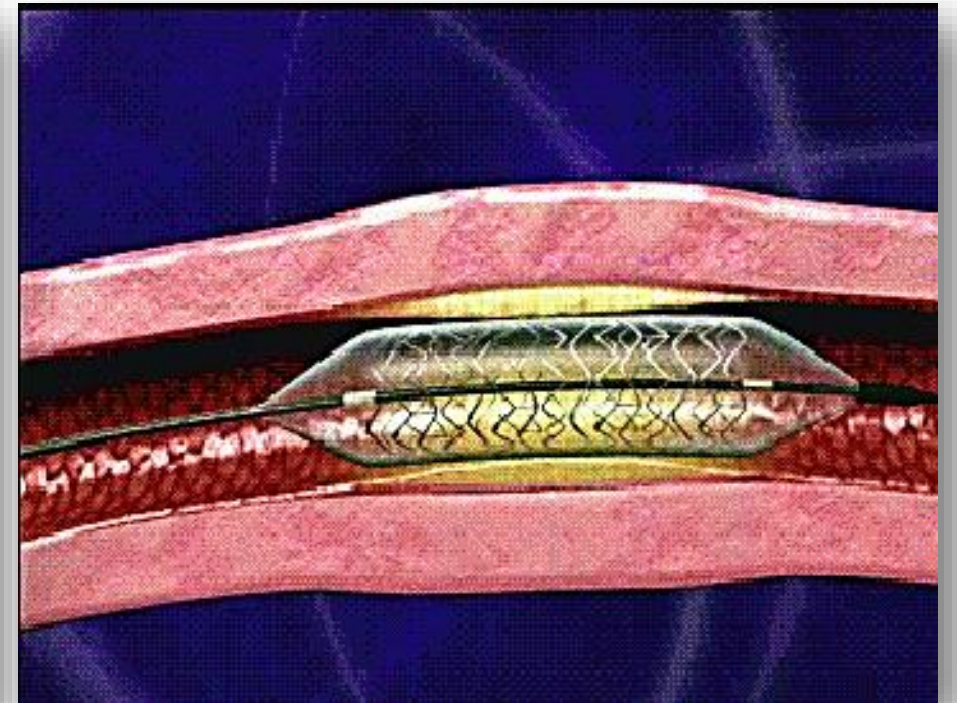
Angioplastia Coronária

Histórico



Andreas Gruentzig
1939 - 1985

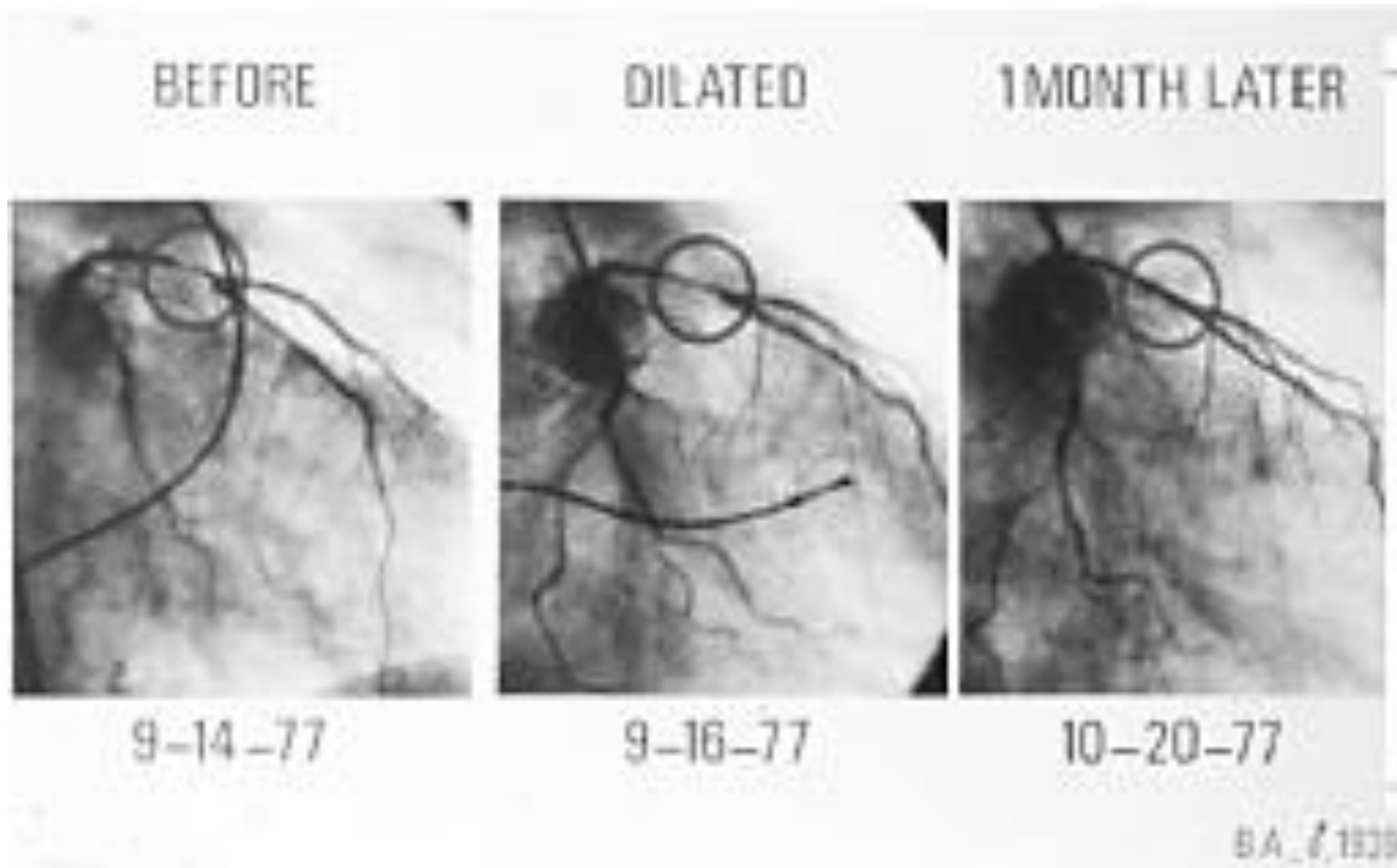
*His dream was the
catheter-based
percutaneous
treatment of vascular
disease in alert, awake
patients!*



Dilatação da Placa Aterosclerótica

Angioplastia Coronária

Histórico



Infarto Agudo do Miocárdio

Tratamento

Dor precordial → ECG + → Monitorização

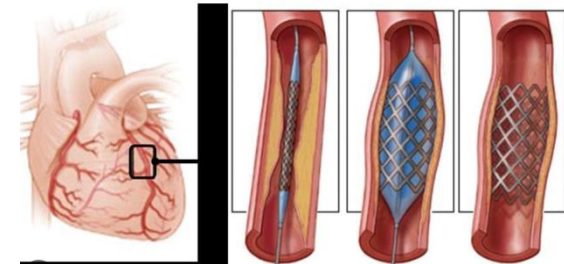
Contínua → Oxigênio → Acesso Venoso



Tratamento

Trombolítico

ICP Primária



“porta agulha” ≤ 10 m

> 30m ↑ mortalidade

“porta balão” ≤ 90 m

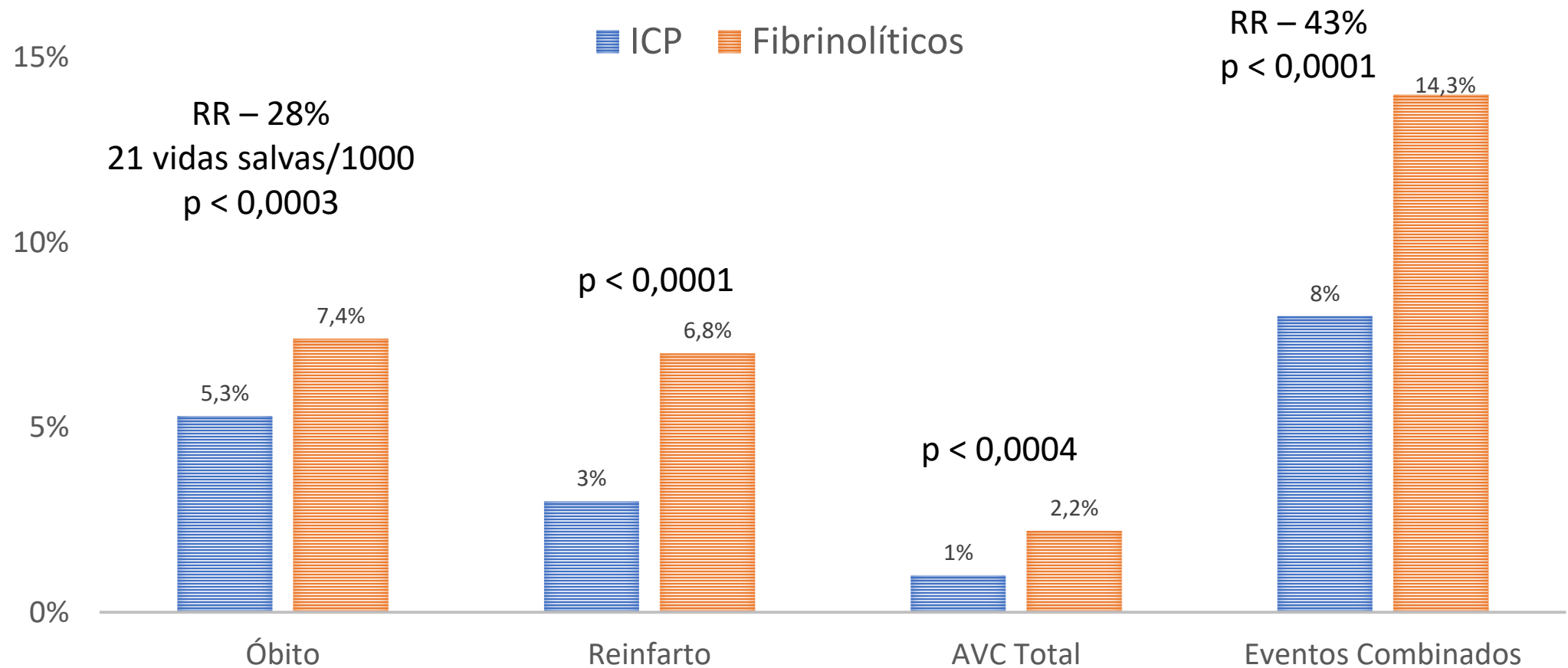
> 2 hs ↑ mortalidade

Solicitação dos Marcadores Sorológicos

23 Estudos Randomizados

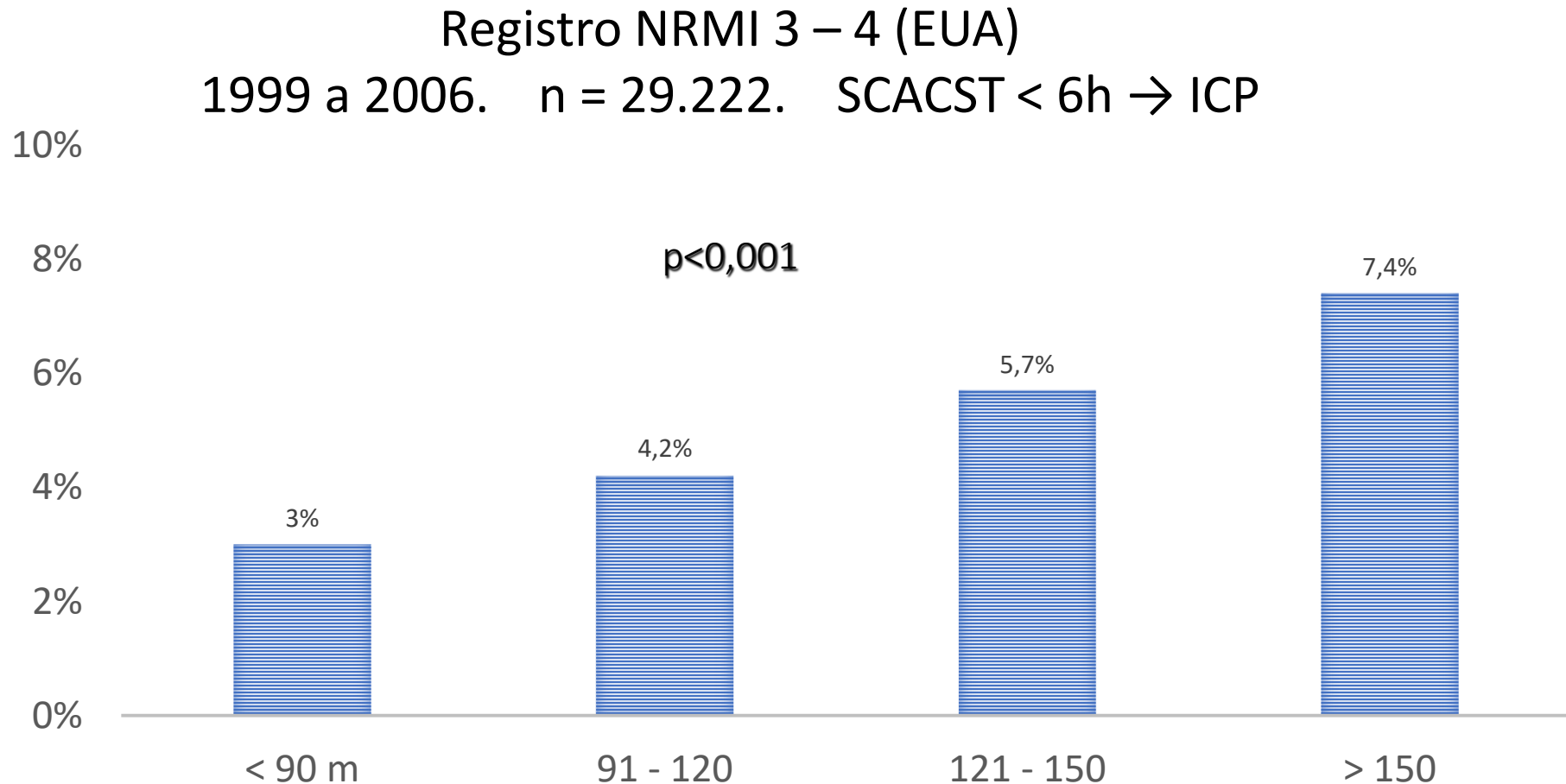
ICP Primária vs Fibrinolíticos

n = 7.739 Resultados 30 dias



Intervenção Coronária Percutânea

Influência do Tempo Porta/Balão – Mortalidade 30 dias

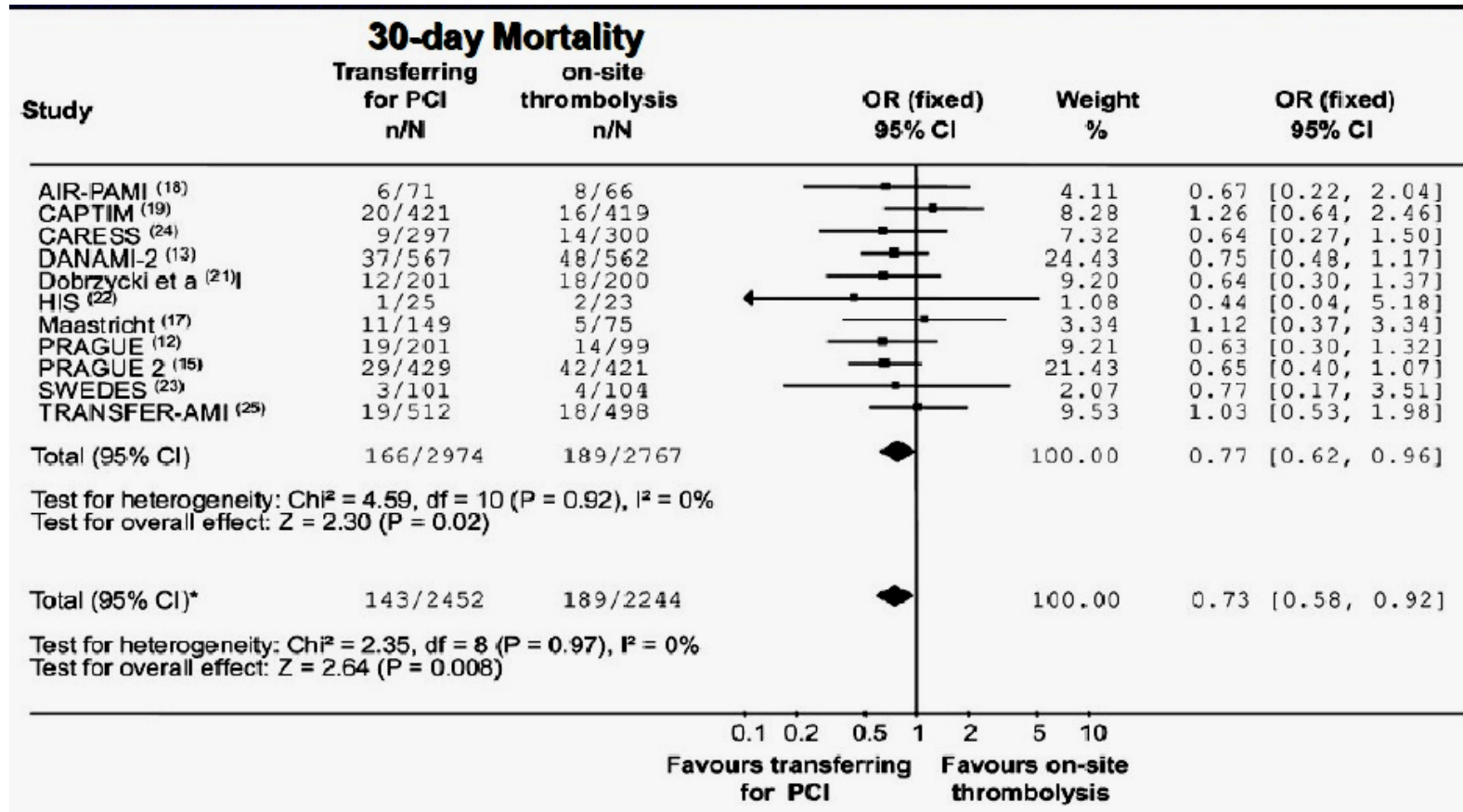


Porta-balão > 90 m → OR 1.42;95%IC 1,24 – 1,62



11 Estudos Randomizados

Transporte ICP vs Fibrinolítico



Metanálise
n = 5.741

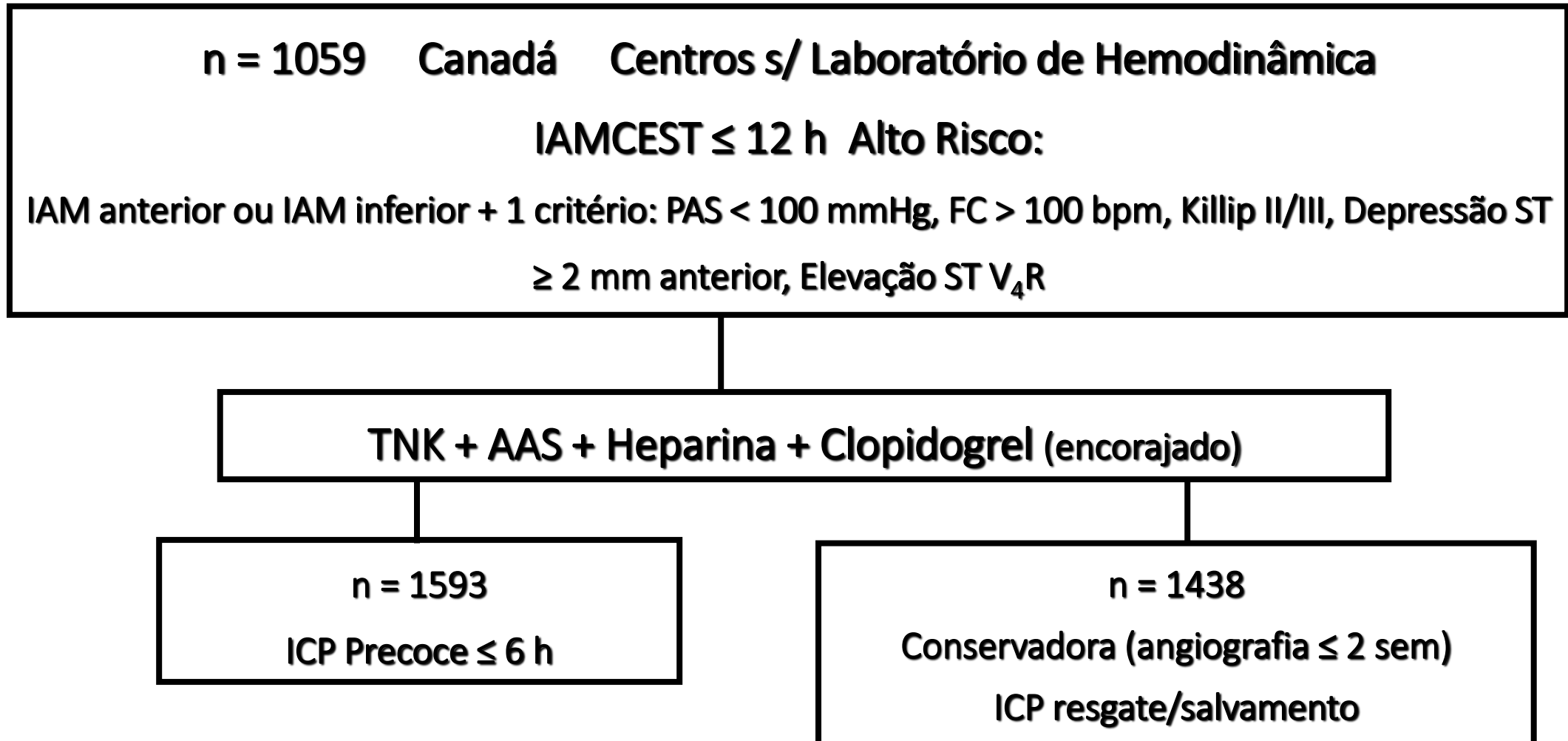
Mortalidade – 5,6% vs. 6,8%

Reinfarto – 2,1% vs. 4,7%, $p < 0,0001$

AVC - 0,7% vs. 1,7%, $p = 0,0005$

TRANSFER - AMI

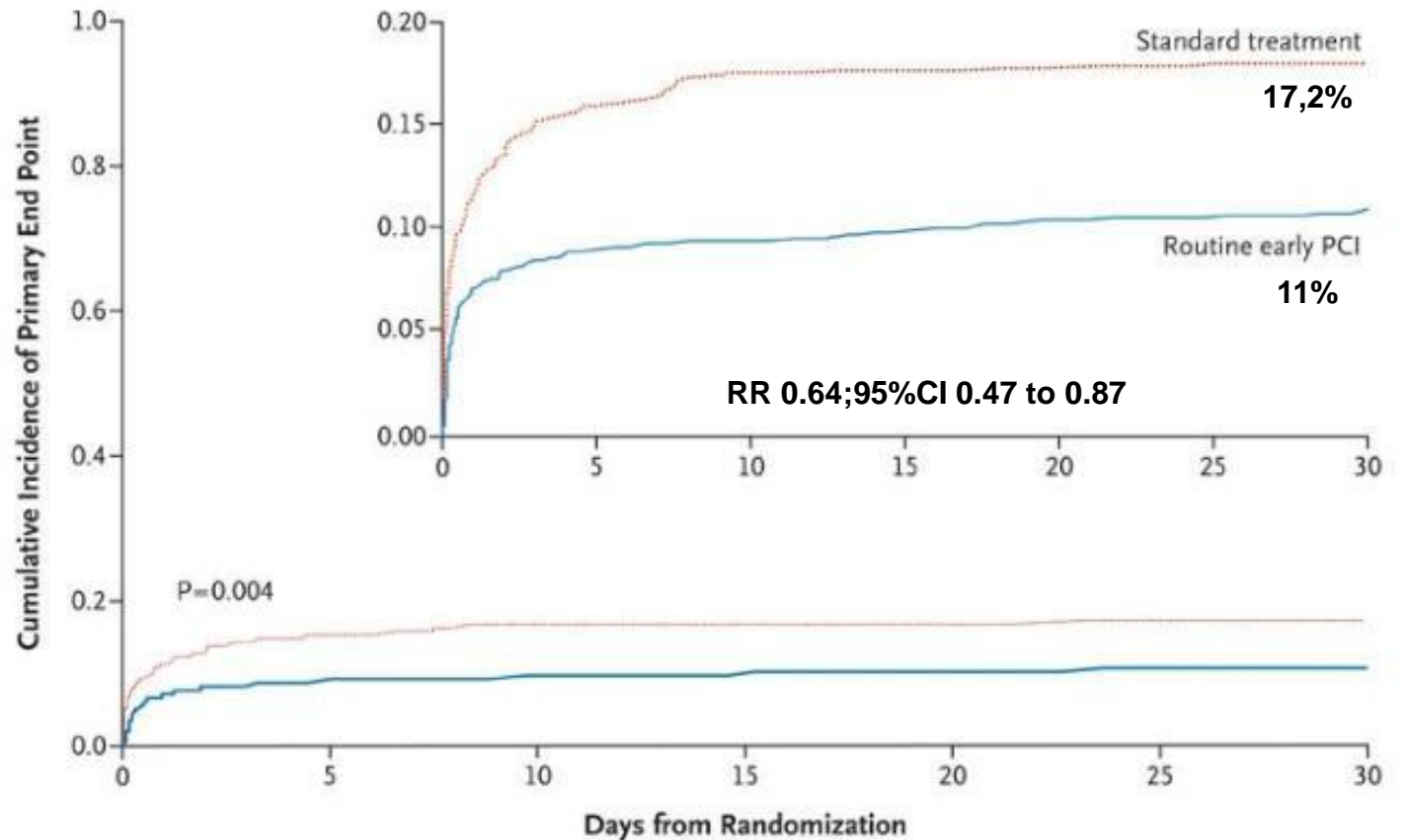
Estratégia Farmacoinvasiva



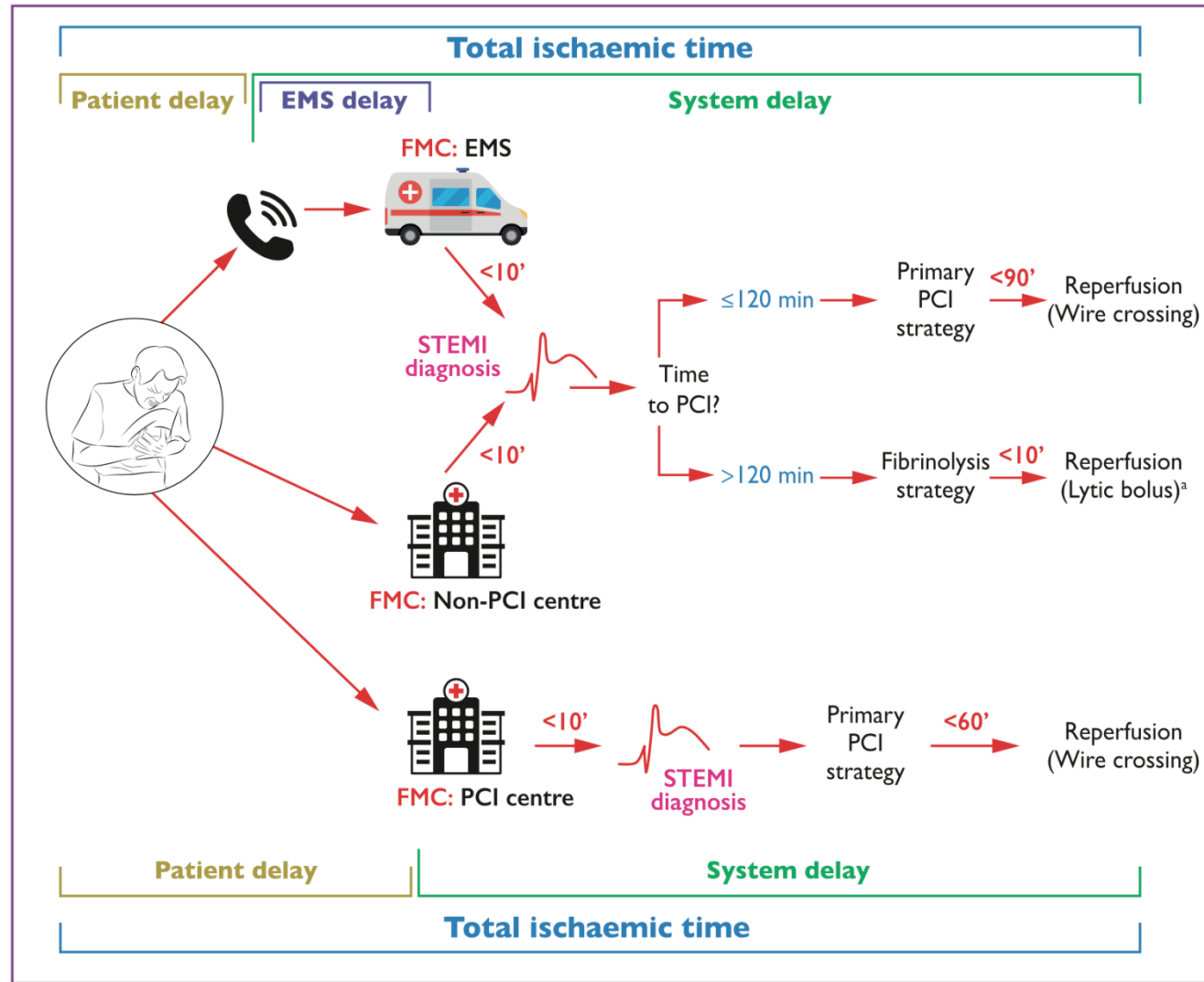
TRANSFER – AMI

Desfecho Primário

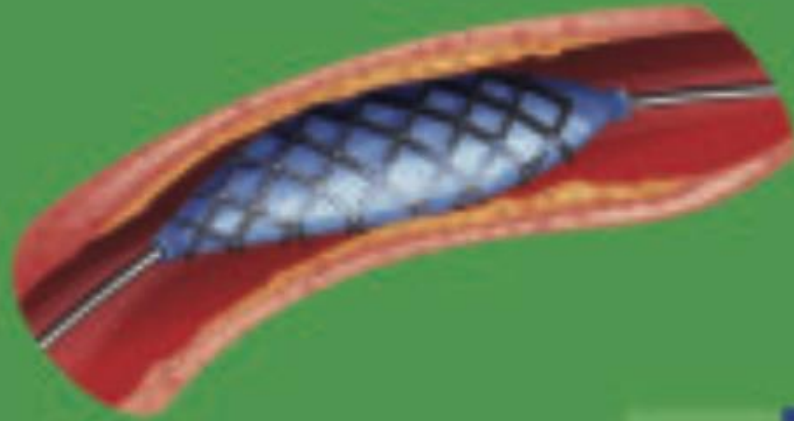
Óbito, Reinfarto,
Isquemia Recorrente,
IC nova/piora ou
Choque Cardiogênico



2017 ESC Guidelines for the management of acute myocardial infarction in patients presenting with ST-segment elevation



Primary PCI



I A

I A

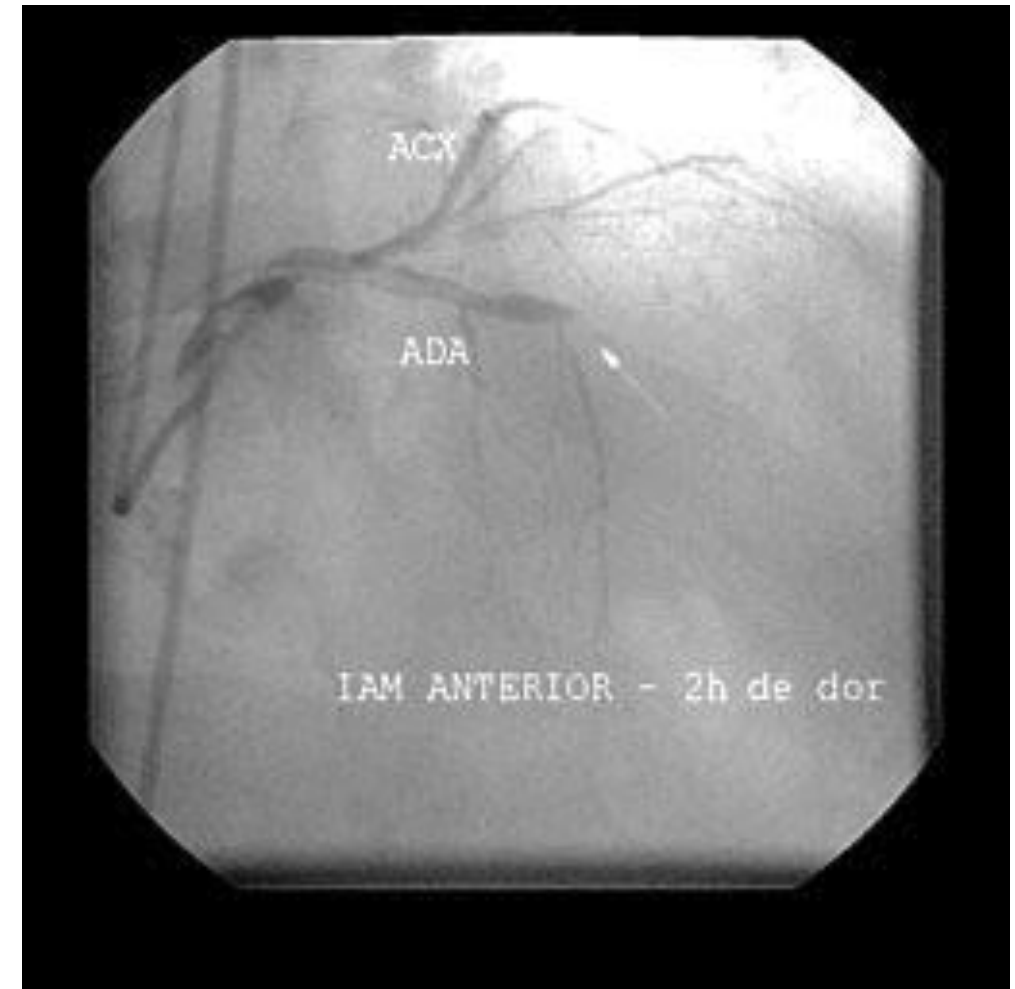
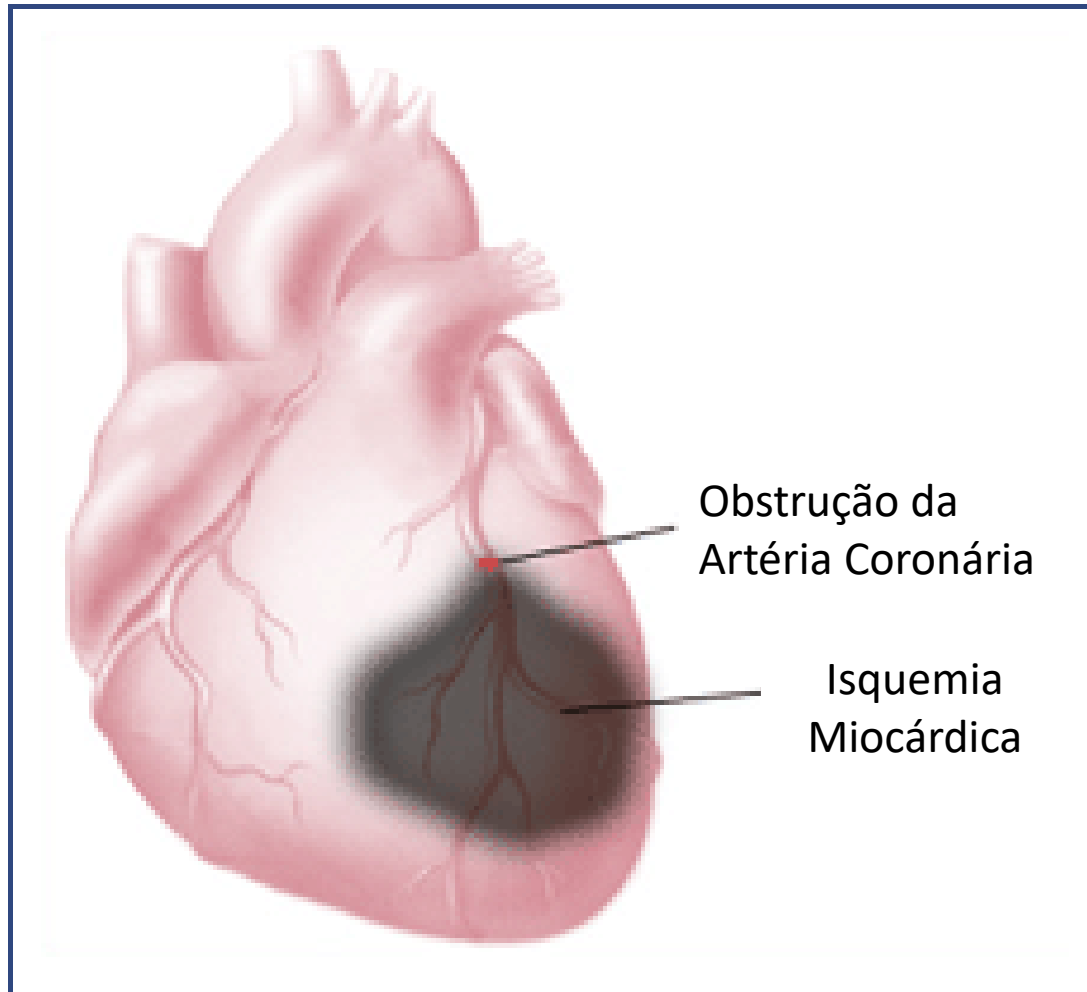
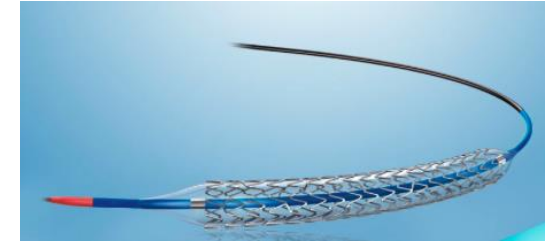


Fibrinolysis

(only if PCI cannot be performed
within 120 min from STEMI diagnosis)

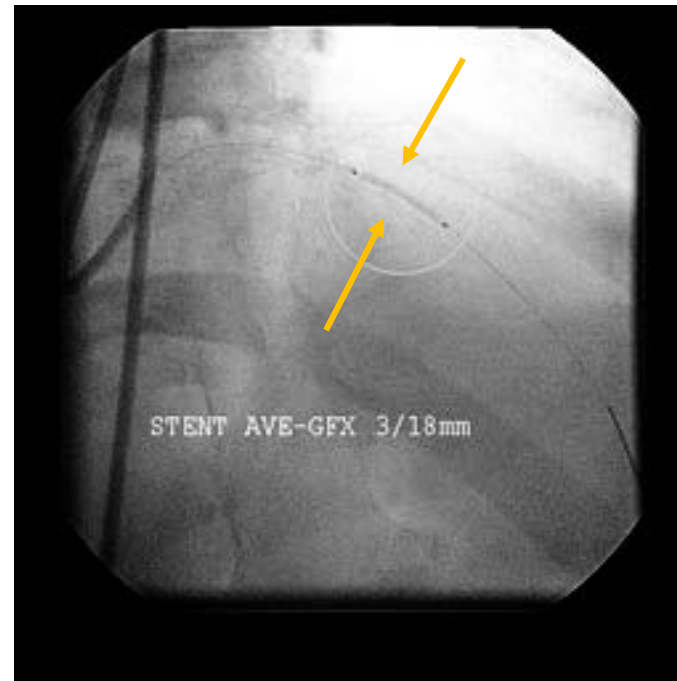
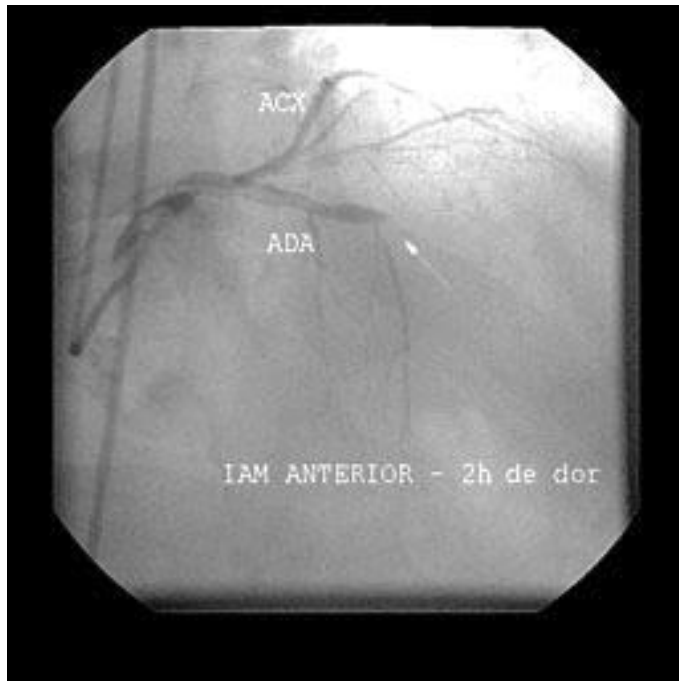
Intervenção Coronária Primária

Implante de Stent Farmacológico



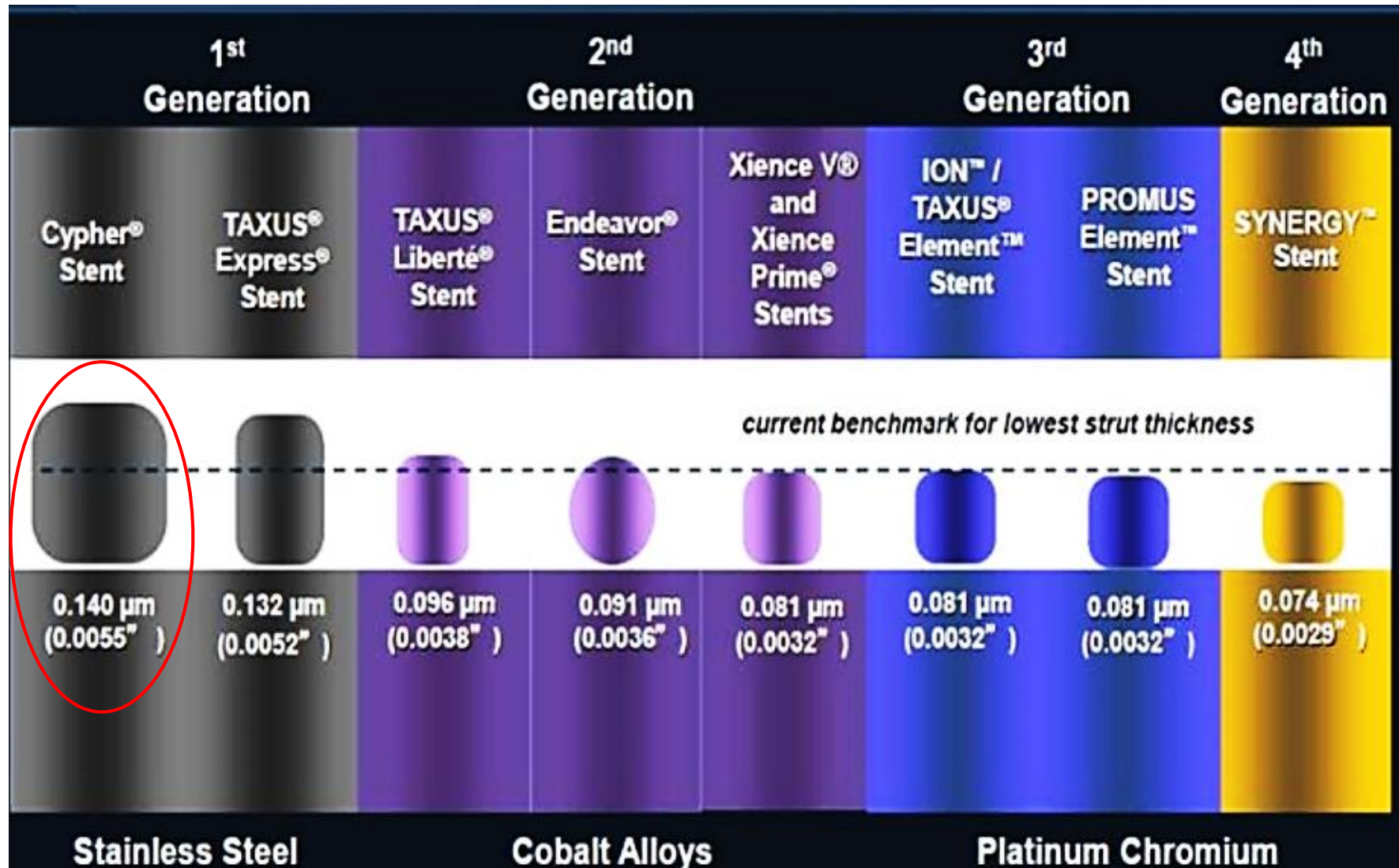
Intervenção Coronária Percutânea

Implante de Stent Farmacológico



Stents Farmacológicos

Evolução Tecnológica



Stents Farmacológicos vs. Não Farmacológicos

Resultados

Metanálise n = 6.026.

Seguimento Clínico 3 a 5 anos

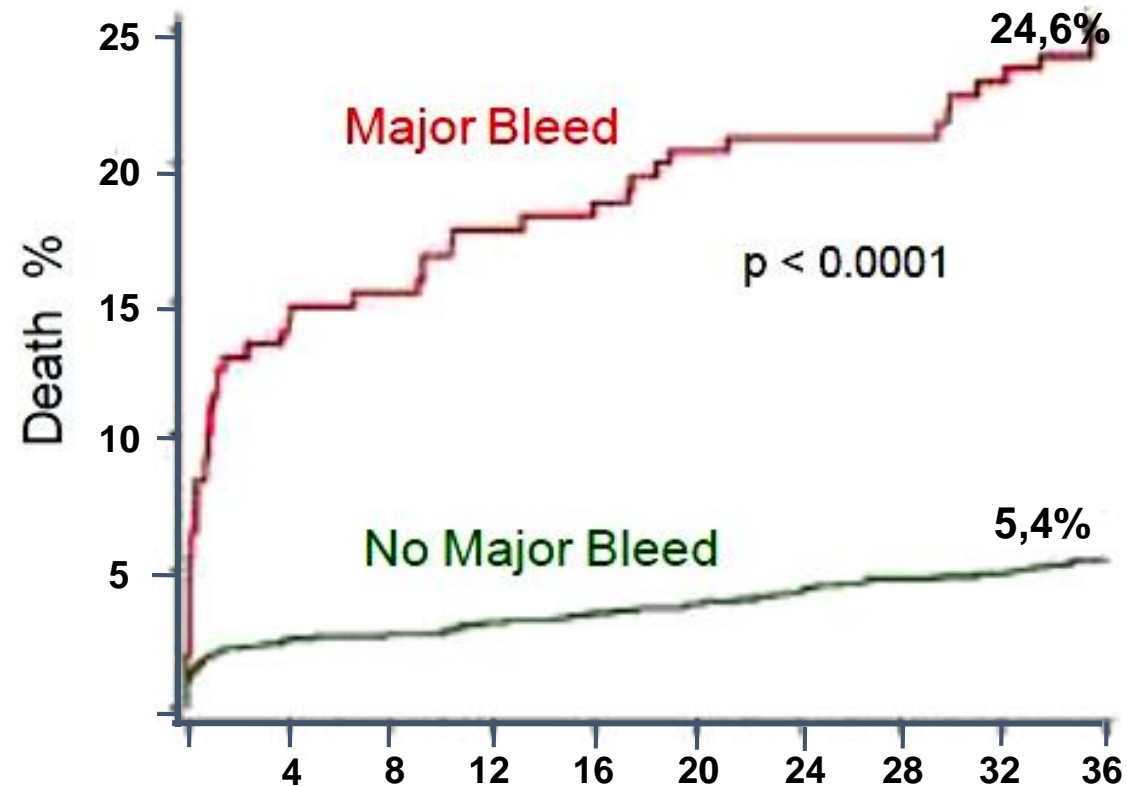
| DEATH | DES | BMS | OR [95%CI] | P |
|----------------------|------------|------------|-------------------------|-------------|
| DEDICATION | 10.5% | 6.4% | 1.73 [0.97, 3.08] | 0.06 |
| PASEO | 8.3% | 12.2% | 0.65 [0.29, 1.49] | 0.31 |
| STRATEGY | 18.4% | 15.9% | 1.19 [0.54, 2.62] | 0.66 |
| SESAMI | 3.2% | 5.0% | 0.61 [0.20, 1.92] | 0.40 |
| MISSION | 4.4% | 6.6% | 0.69 [0.25, 1.85] | 0.46 |
| TYPHOON | 4.0% | 6.6% | 0.61 [0.27, 1.36] | 0.23 |
| PASSION | 8.9% | 11.5% | 0.75 [0.45, 1.27] | 0.29 |
| HORIZONS-AMI | 5.6% | 6.6% | 0.84 [0.60-1.17] | 0.33 |
| META-ANALYSIS | | | 0.88 [0.68-1.11] | 0.27 |

| TVR | DES | BMS | OR [95%CI] | P |
|----------------------|------------|------------|-------------------------|------------------|
| DEDICATION | 8.9% | 19.8% | 0.40 [0.25, 0.64] | <0.01 |
| PASEO | 6.1% | 21.1% | 0.24 [0.11, 0.54] | <0.01 |
| STRATEGY | 10.3% | 26.1% | 0.33 [0.14, 0.75] | 0.01 |
| SESAMI | 8.3% | 16.0% | 0.46 [0.23, 0.92] | 0.03 |
| MISSION | 8.9% | 15.8% | 0.54 [0.27, 1.09] | 0.09 |
| TYPHOON | 11.9% | 21.5% | 0.49 [0.30, 0.80] | <0.01 |
| PASSION | 7.7% | 10.5% | 0.73 [0.42, 1.26] | 0.26 |
| HORIZONS-AMI | 12.5% | 17.7% | 0.67 [0.53-0.84] | 0.001 |
| META-ANALYSIS | | | 0.50 [0.40-0.64] | <0.001 |

Sangramento > na Fase Hospitalar

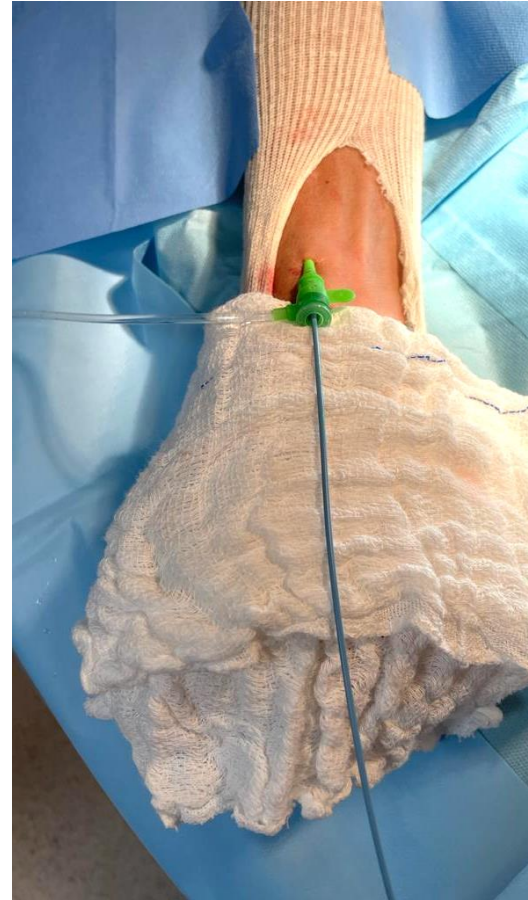
Mortalidade

HORIZONS AMI TRIAL N = 3.602 STEMI ≤ 12 h ICP Primária



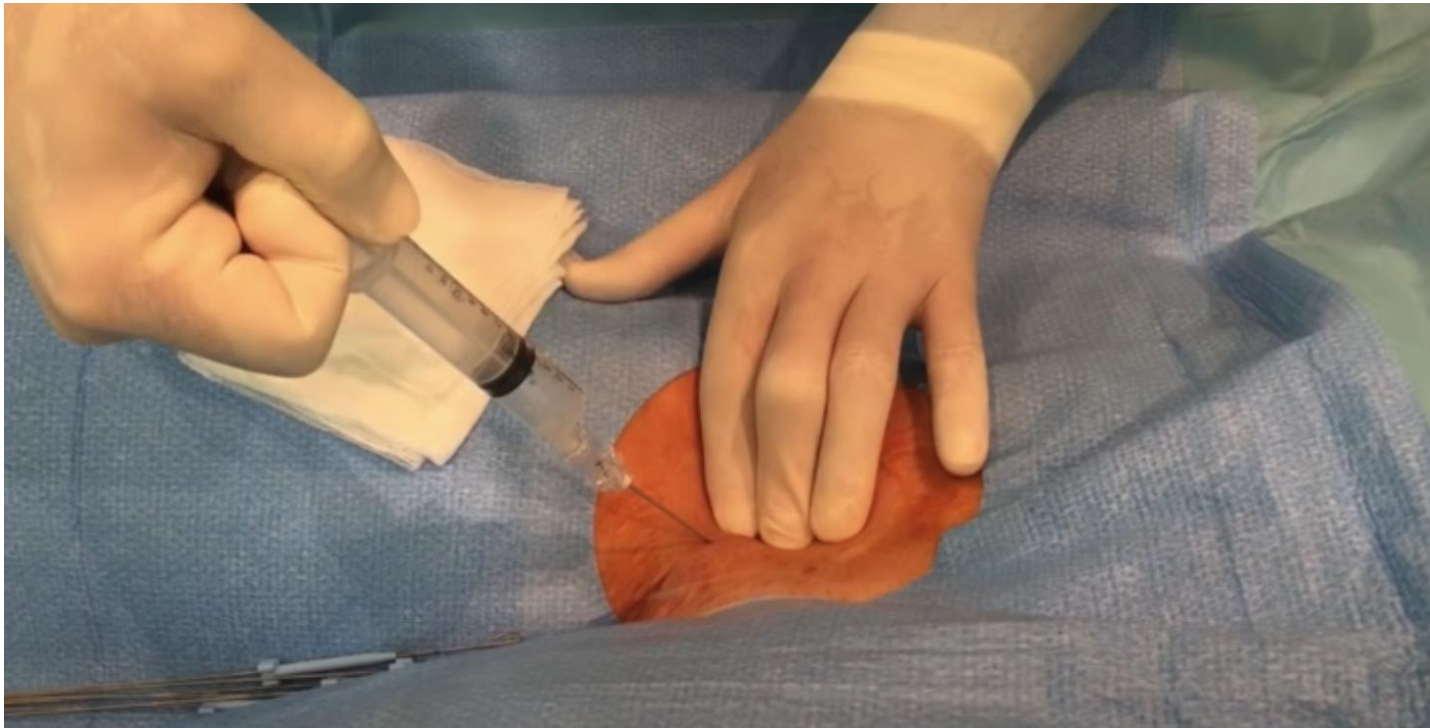
Tratamento do Infarto Agudo do Miocárdio

Técnica Radial vs. Femoral



Tratamento do Infarto Agudo do Miocárdio

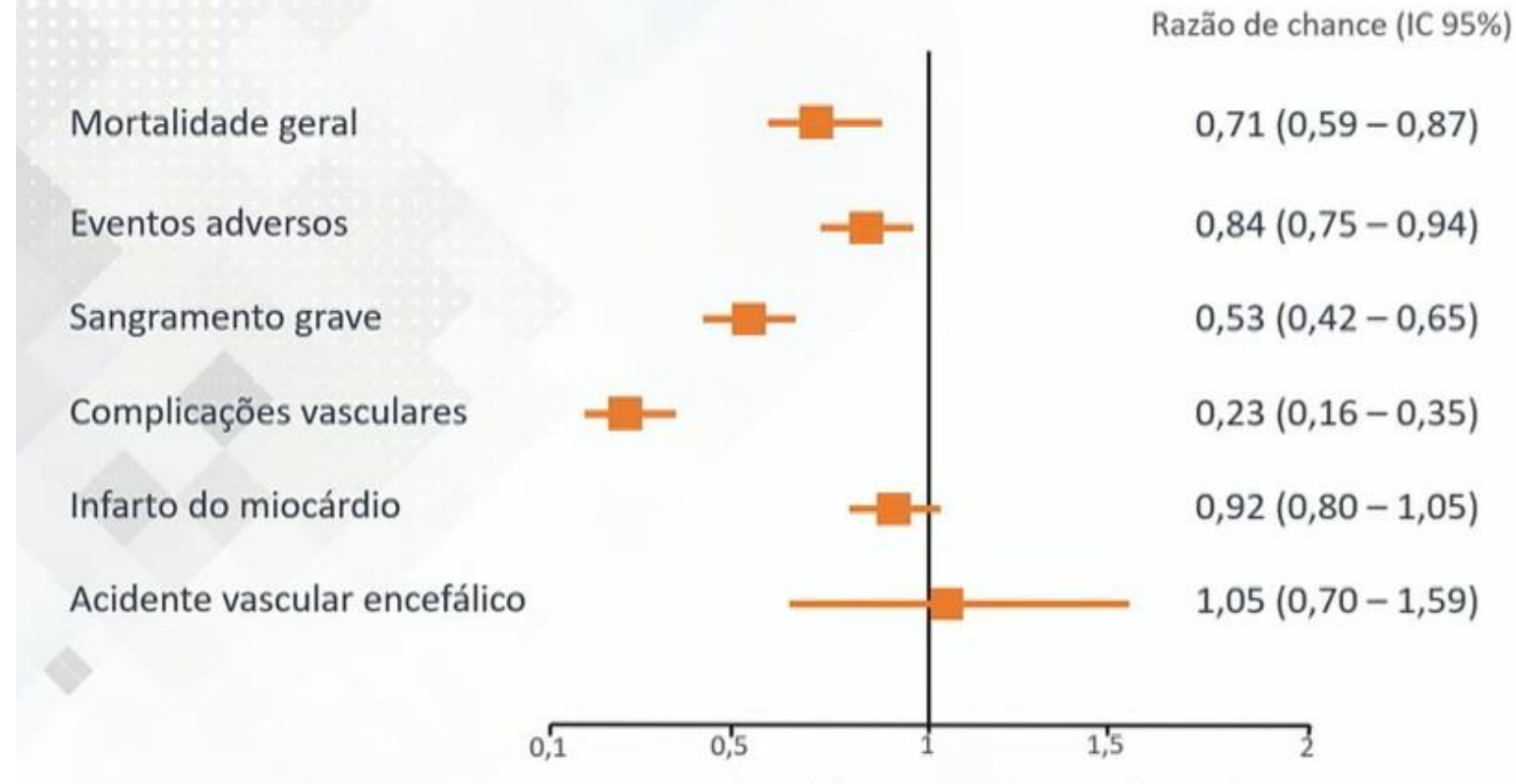
Técnica Radial vs. Femoral



Técnica Radial vs. Femoral

Complicações

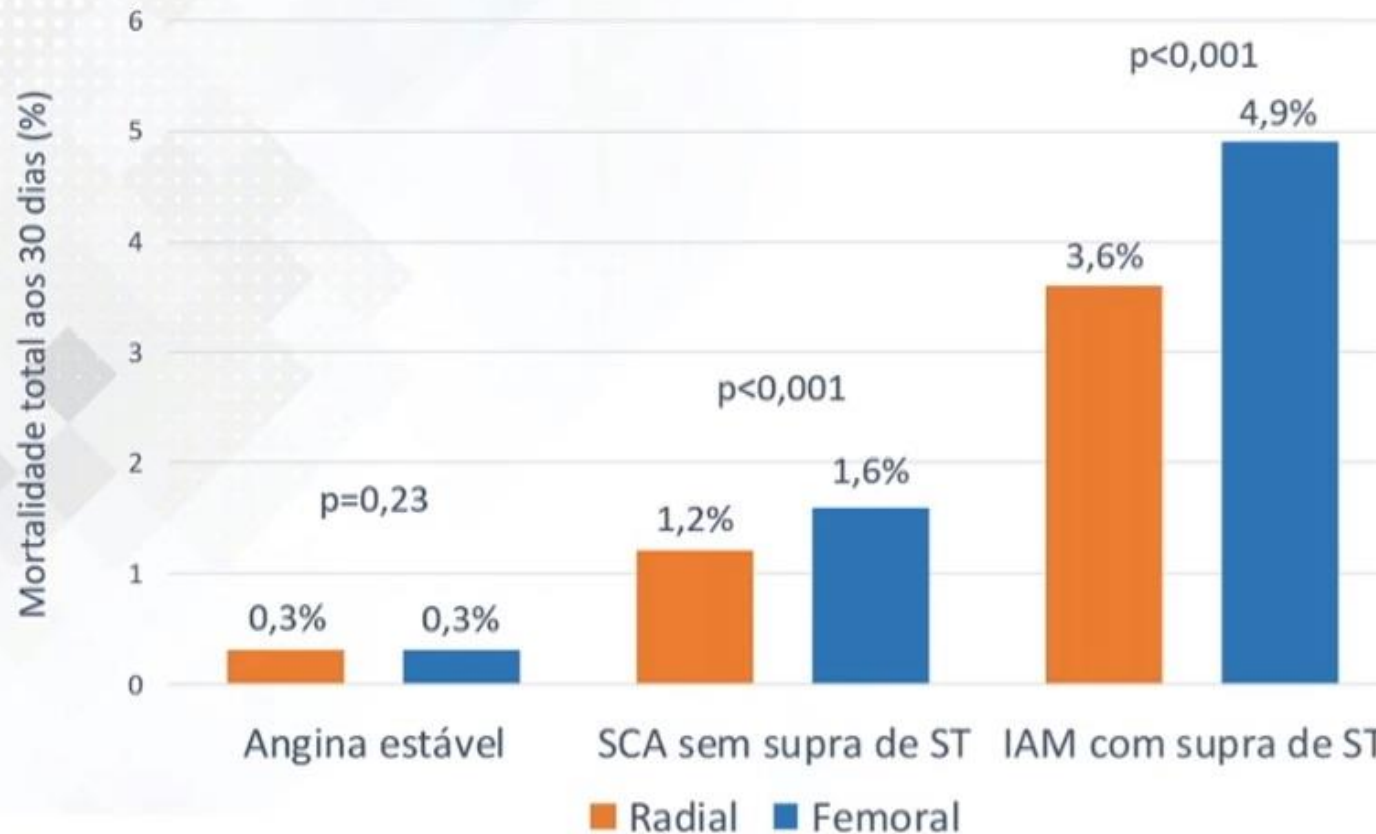
Meta-análise de 24 estudos randomizados incluindo 22.843 pacientes



Técnica Radial

Mortalidade

British Cardiovascular Intervention Society (2007-2012): 495.913 intervenções coronárias percutâneas

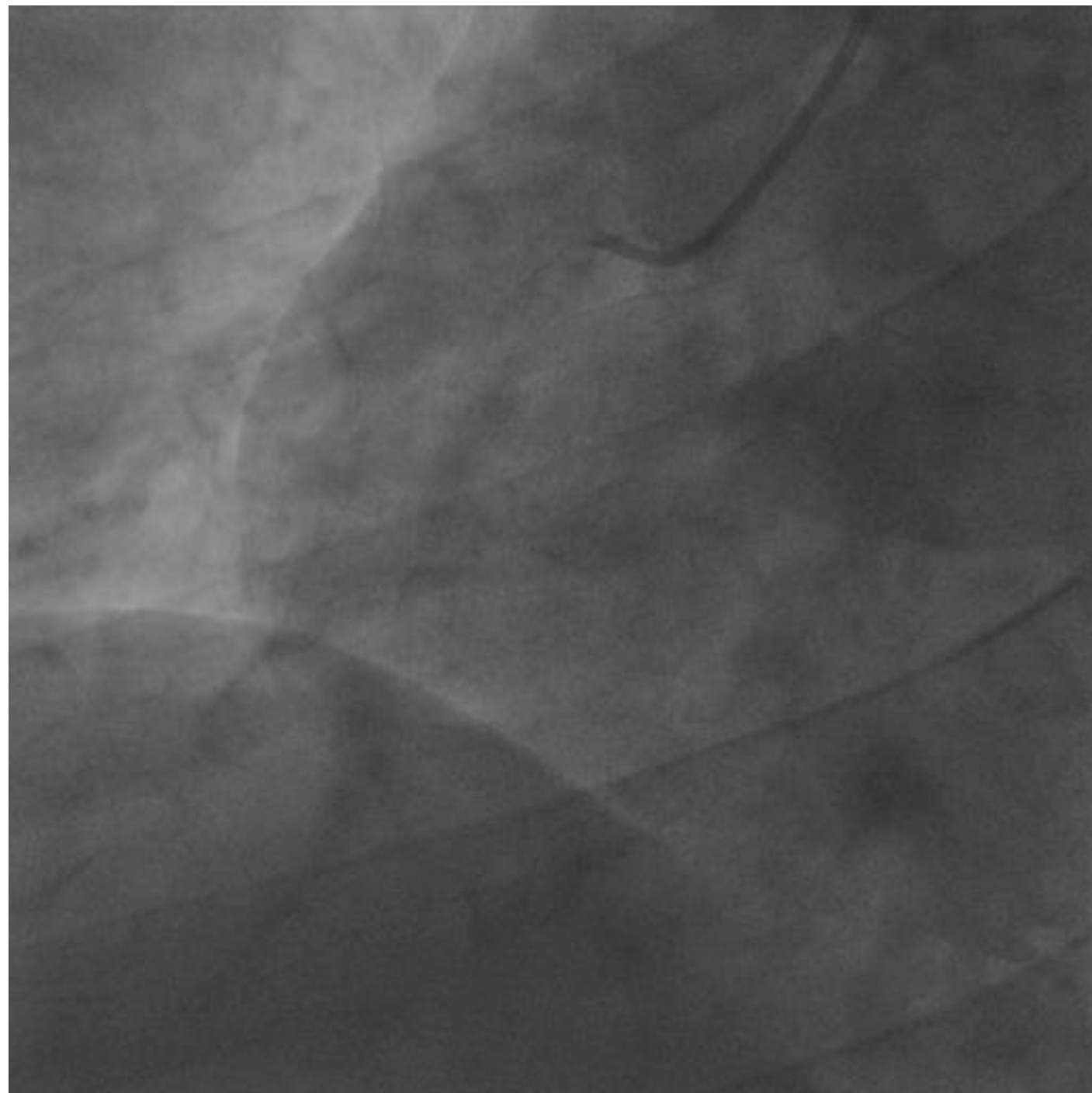


Angiografia Coronaria

Acesso Radial

Oclusão com Alta

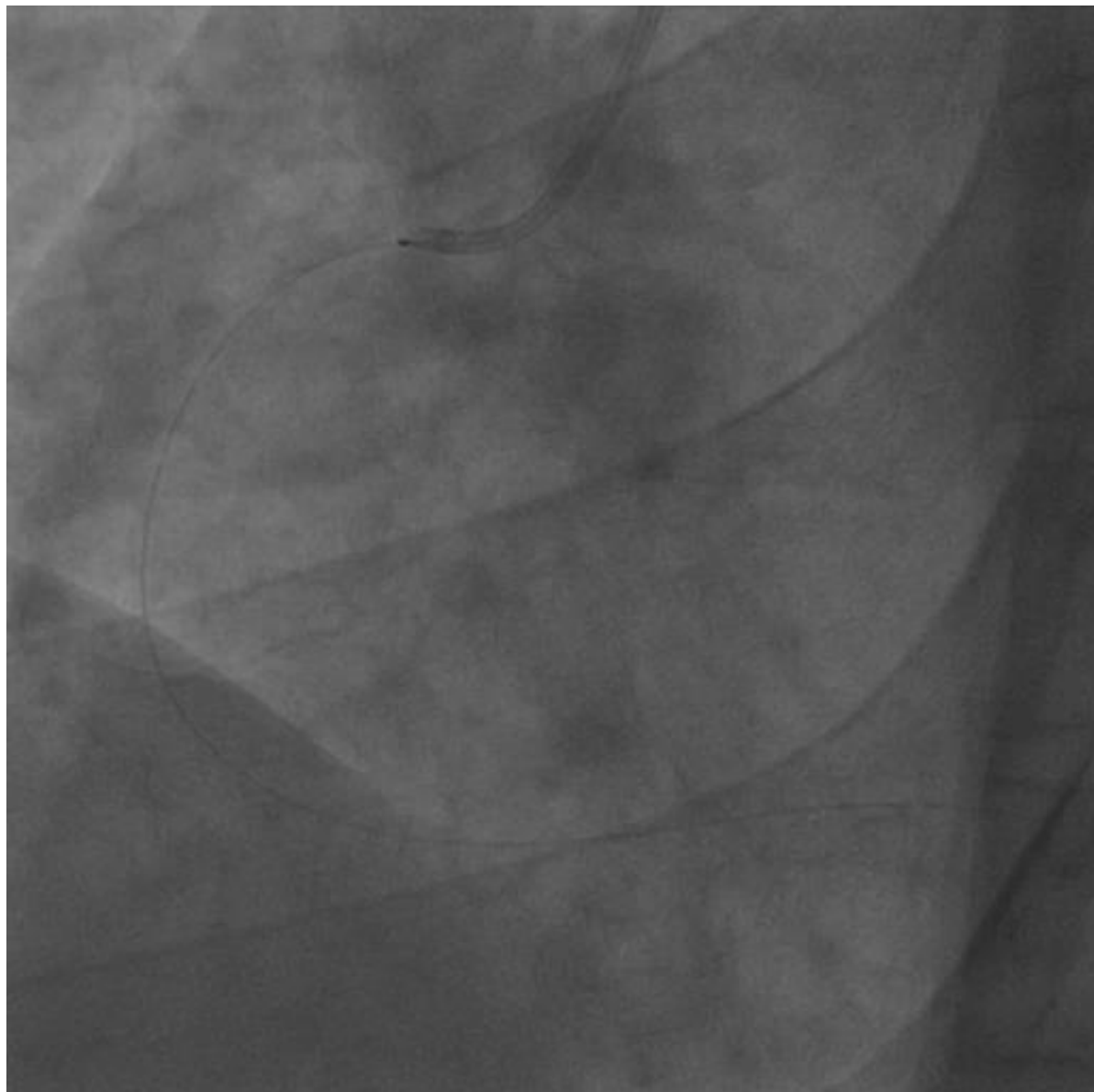
Carga Trombótica

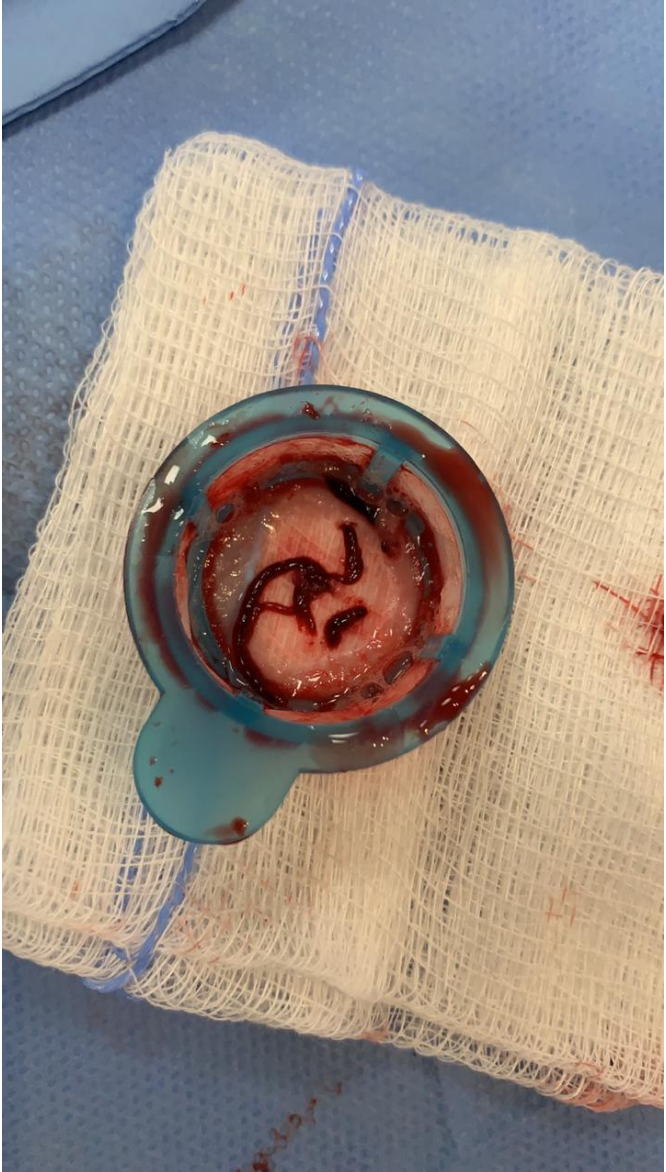
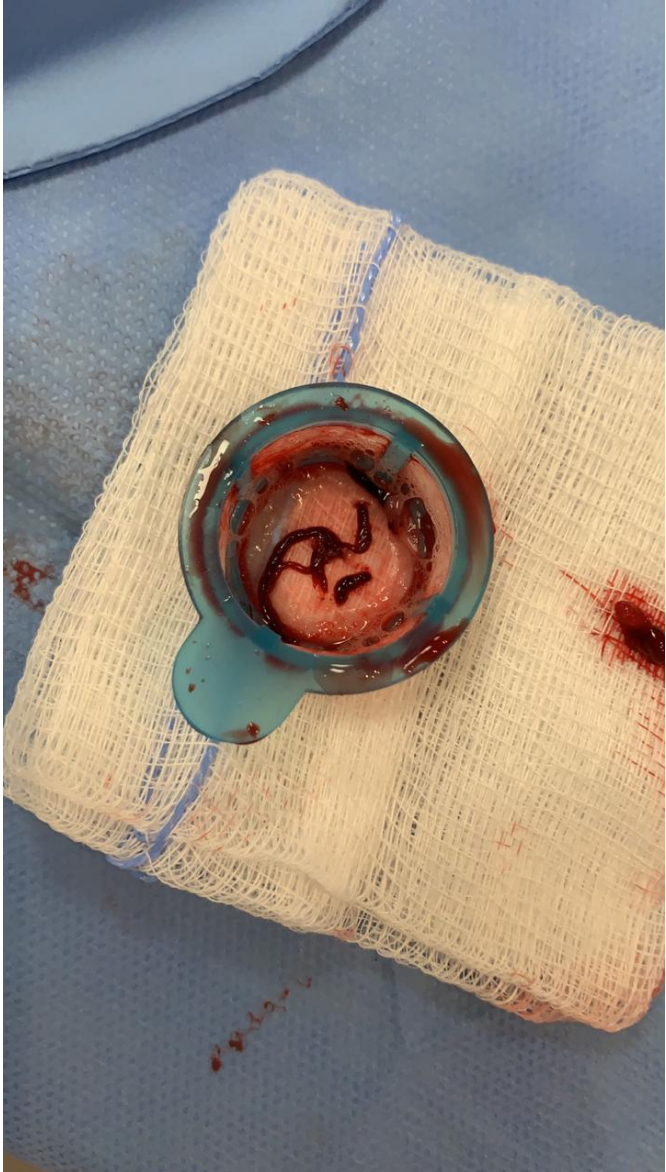


Aspiration Export™ AP Catheter



UFH – 100u/Kg - EV

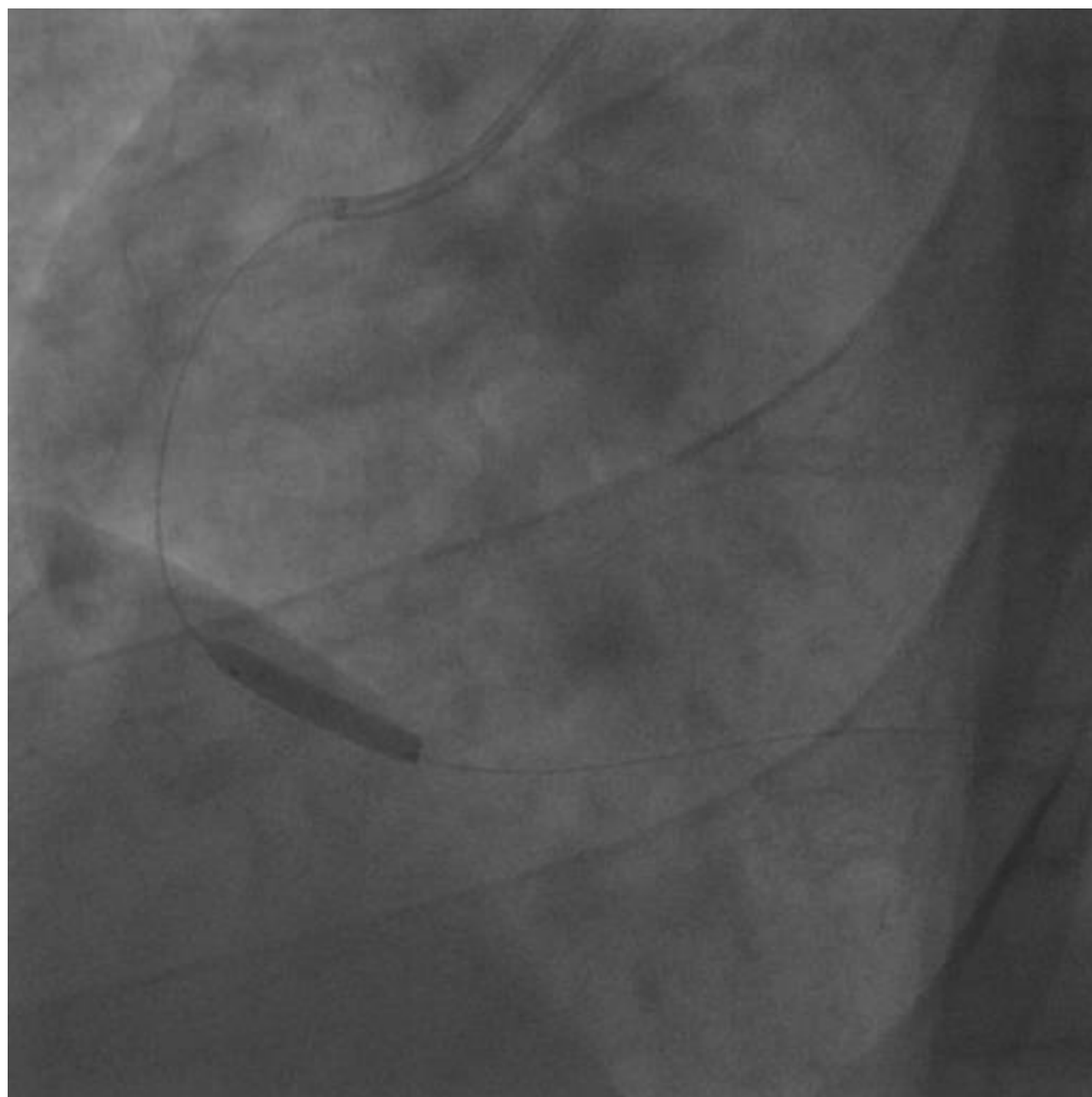




Pós Aspiração



DILATAÇÃO COM
CATETER BALÃO
2.5 x 15 mm



RESULTADO FINAL

PÓS IMPLANTE DE
STENT

3562385

