

Intracoronary thrombolysis in acute myocardial infarction

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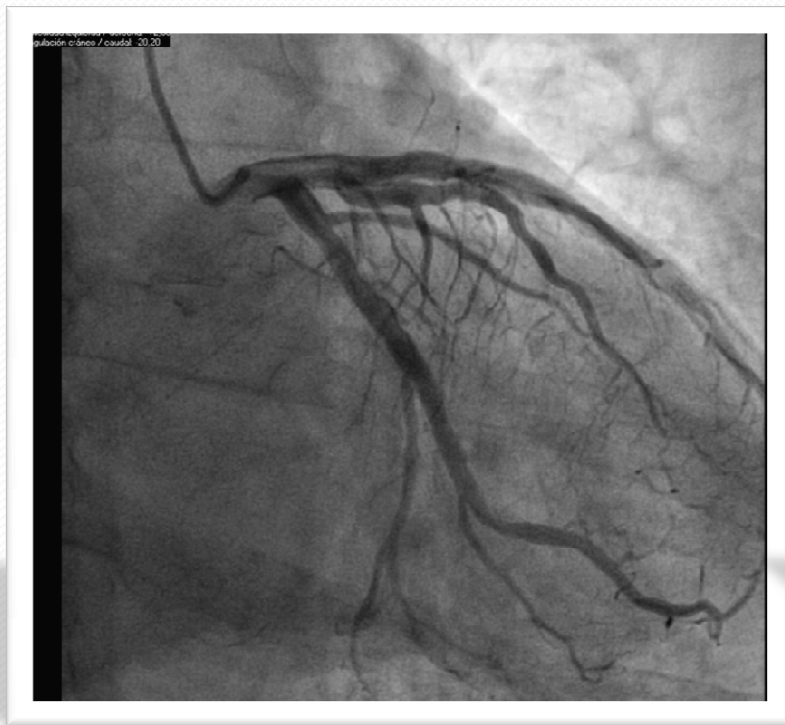
Intracoronary thrombolysis in acute myocardial infarction.

- **Clinical data:**

- 69 y.o. man.
- CVRF: Hypertension.
- Previous history of ischemic cardiac disease:
 - Inferior AMI (Dec 2017) with severe lesion in posterolateral branch treated with ballon angioplasty.
- Now referred for inferior AMI:
 - 9 hours of sympstoms. Killip 1.
 - Treatment: AAS 250 mg + Clopidogrel 600 mg.

Intracoronary thrombolysis in acute myocardial infarction.

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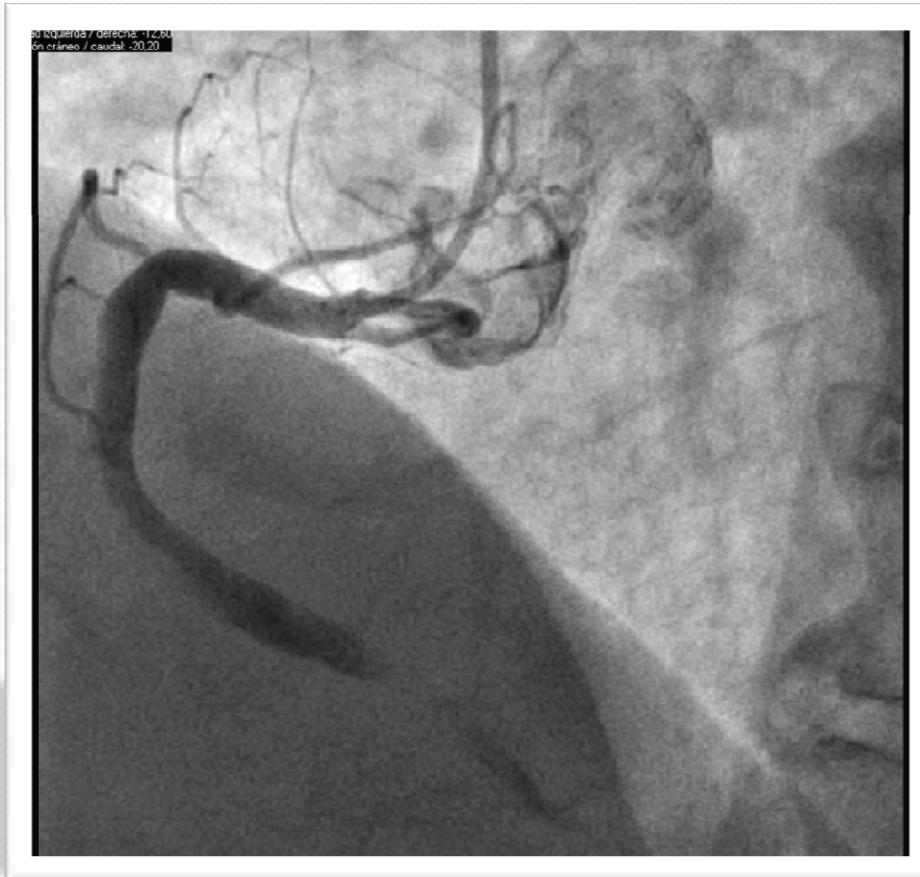
Circunflex A.: No lesion



LAD: No lesion

Intracoronary thrombolysis in acute myocardial infarction.

- **Clinical data:**



RCA: distal thrombosis with great burden of clot inside.

Intracoronary thrombolysis in acute myocardial infarction.

• Clinical data:



Material:

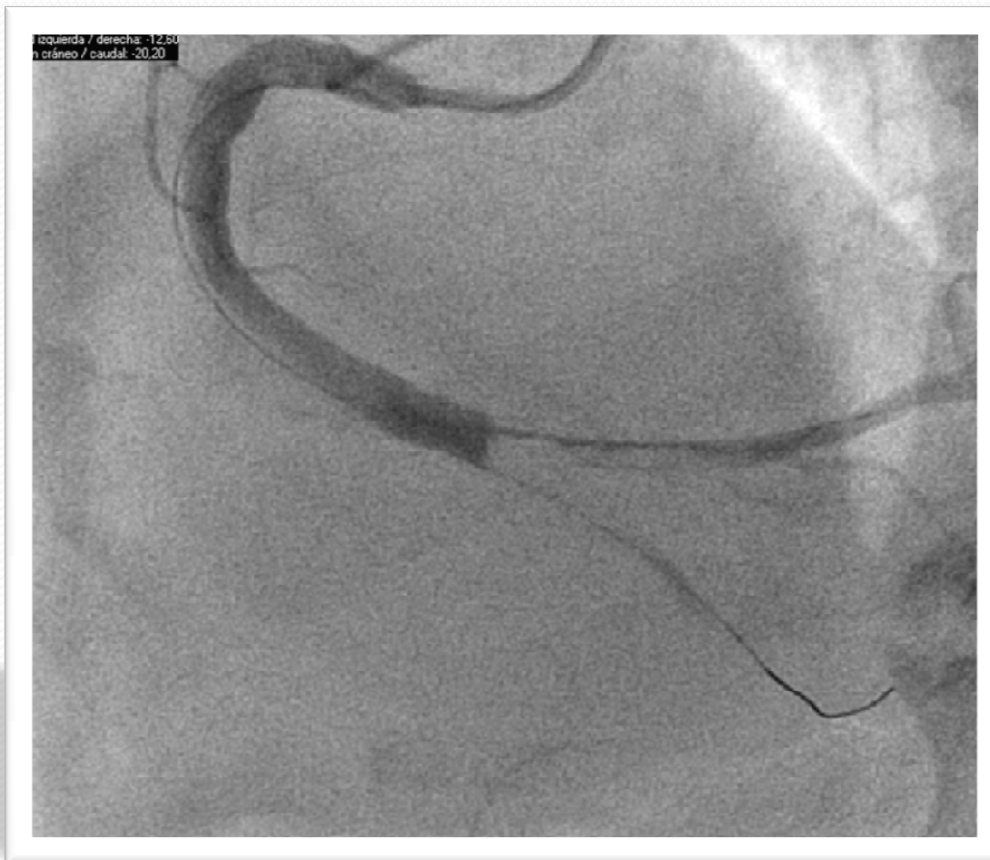
- Guiding catheter: AR2 6F
- Guidewire: Pilot 50 (x2).
- Hunter® (thromboaspiration device).
- Catheter ballon (2x20 mm).

Procedure:

- The lesion is crossed with the guidewire. Posterior descending (PD) artery is seen.
- Numerous attempts to extract thrombus with Hunter® are performed.

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Procedure:

- A second Pilot 50 guidewire is placed in the posterolateral (PL) branch.
- Predilatation with 2x20 mm balloon is performed without good distal flow because of the great clot.
- The clot moves from PL to PD branches with every attempt.

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Procedure:

- Intracoronary thrombolysis is performed with a bolus of 15 mg of Alteplasa (Actylise®) in 3 minutes.
- New thromboaspiration attempts are performed.

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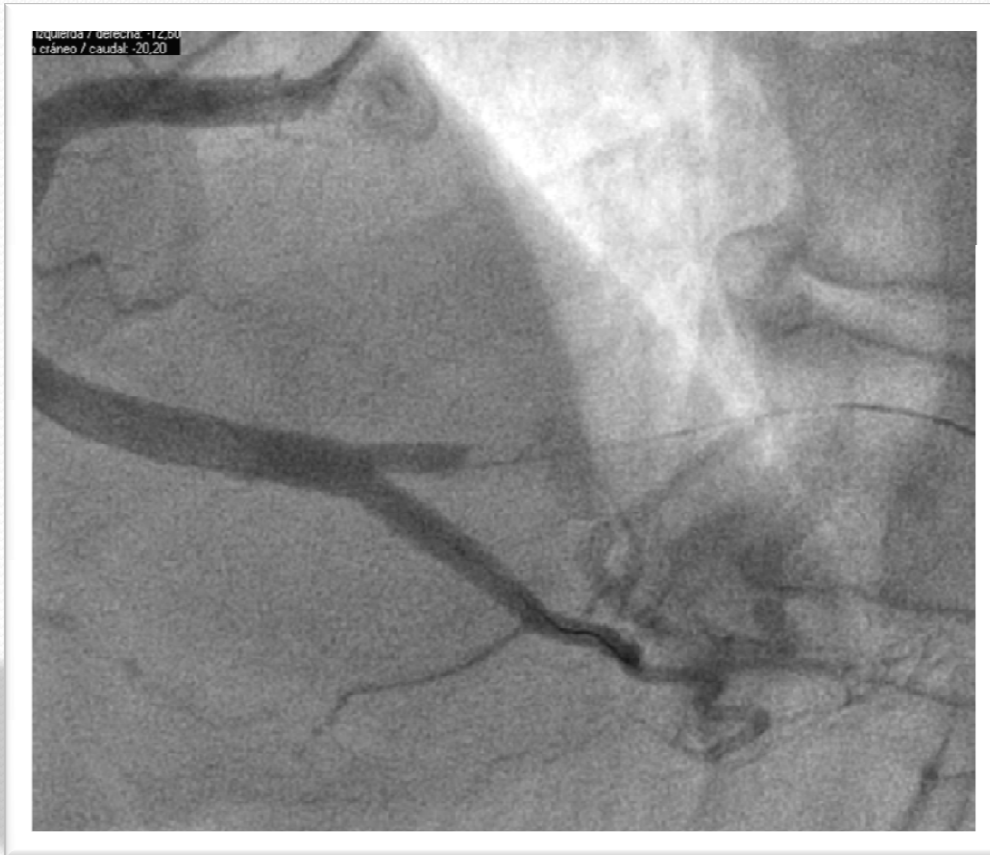


Procedure:

- Progressive improvement of the distal flow.

Intracoronary thrombolysis in acute myocardial infarction.

- **Clinical data:**

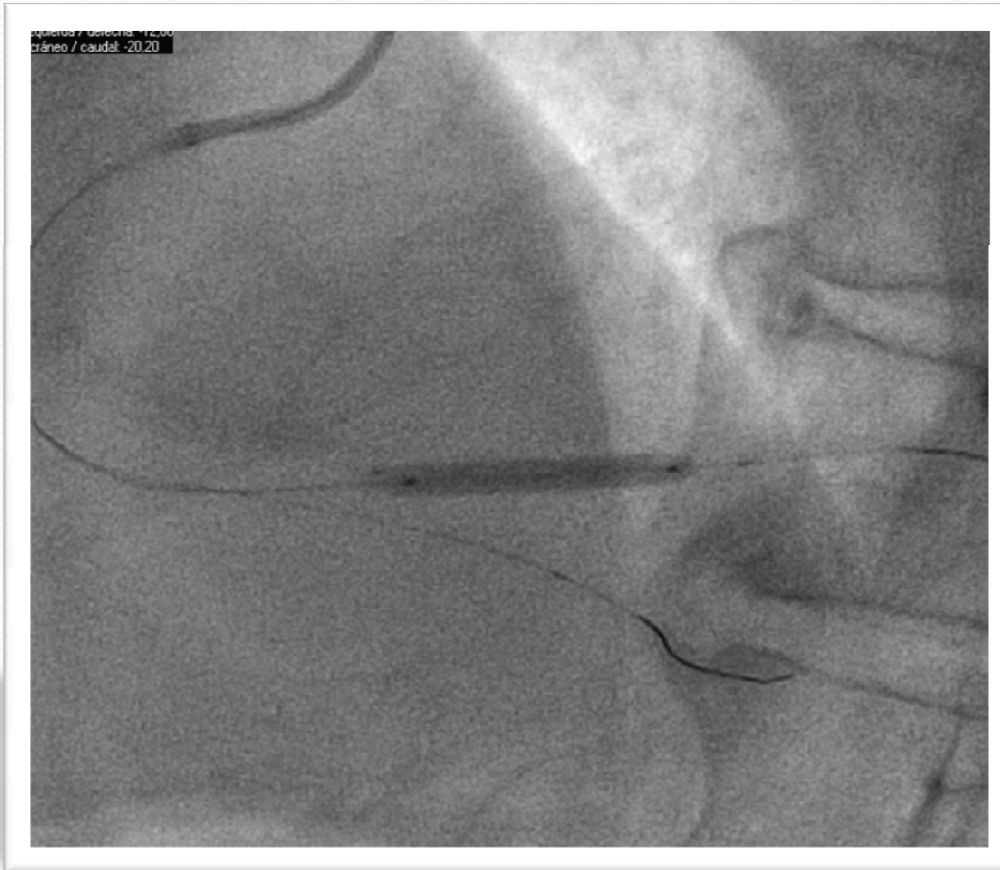


Procedure:

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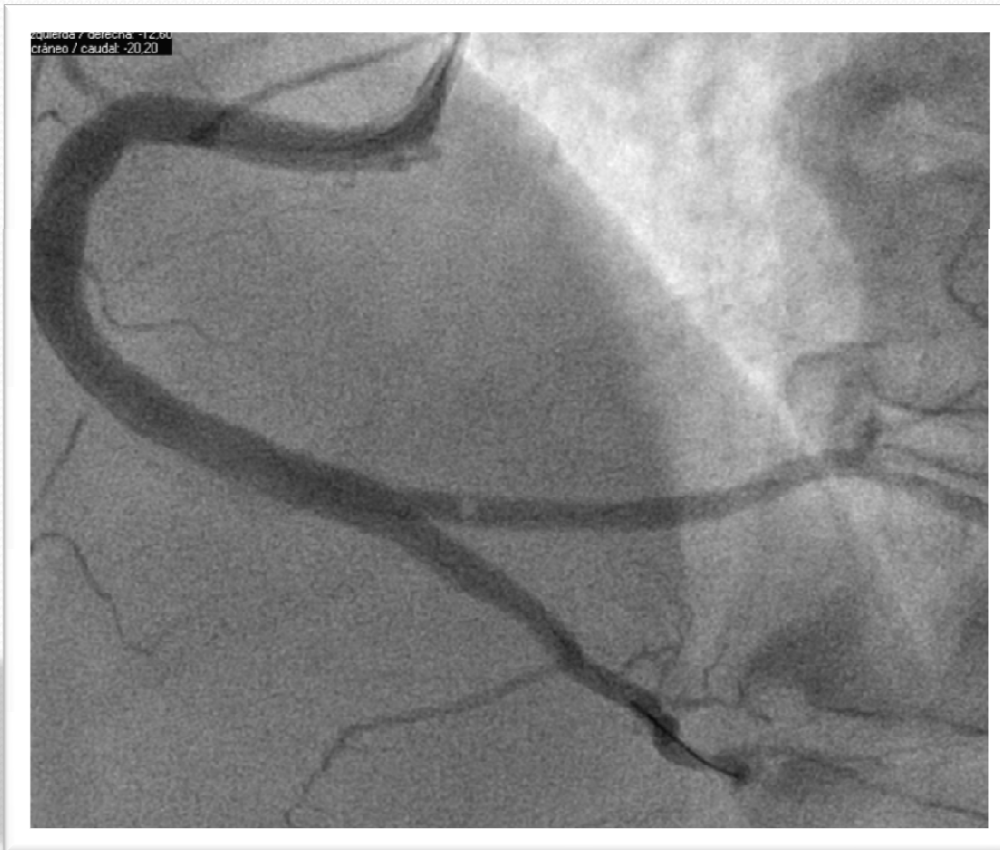


Procedure:

- A Biomatrix Alpha[®] 3x24 mm is implanted in the PL branch.

Intracoronary thrombolysis in acute myocardial infarction.

- **Clinical data:**



Procedure:

- Excellent result of the stent with patency of both branches after the implantation.
- Small clots remain along the artery, but with TIMI 3 flow and restoration of the ST segment.

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- **Conclusion:**

- Myocardial infarction represents a challenging scenario in PCI due to:
 - Clinical instability of patients.
&
 - Complex lesion: thrombus, invisible distal vessels.

Intracoronary thrombolysis in acute myocardial infarction.

- **Conclusion:**

- In some patients, more usual techniques are unable to restore the distal flow, so it is mandatory to try “atypical” tools/treatments.
- Intracoronary thrombolysis could be an optional treatment in patients with a great burden of clot and impossibility to restore distal flow.

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- **Conclusion:**

- Although the use of intracoronary thrombolysis is poorly described in literature, some previous papers have demonstrated its feasibility, safety and good clinical results (Kelly et al; Catheter Cardiovascular Interv 2005; 66(3), 327-332; Boscarelli et al; Eur Heart J Acute Cardiovasc Care 2104; 3(3), 229-36).
- In these patients, the risk of hemorrhage is increased, thus a close clinical monitoring is mandatory during the first hours.
- Biomatrix Alpha[®] has demonstrated an excellent behaviour in complicated scenarios.