

Successful Treatment of Coronary Artery Perforation During Angioplasty Using Gelatin Sponge

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- Coronary perforation is a potential complication of severe calcification and chronic total occlusion (CTO) in the percutaneous coronary intervention (PCI).
- The estimated incidence of coronary perforation in CTO PCI is 2.9%.¹
- The incidence of coronary perforation in non-CTO PCI is 0.2%.¹

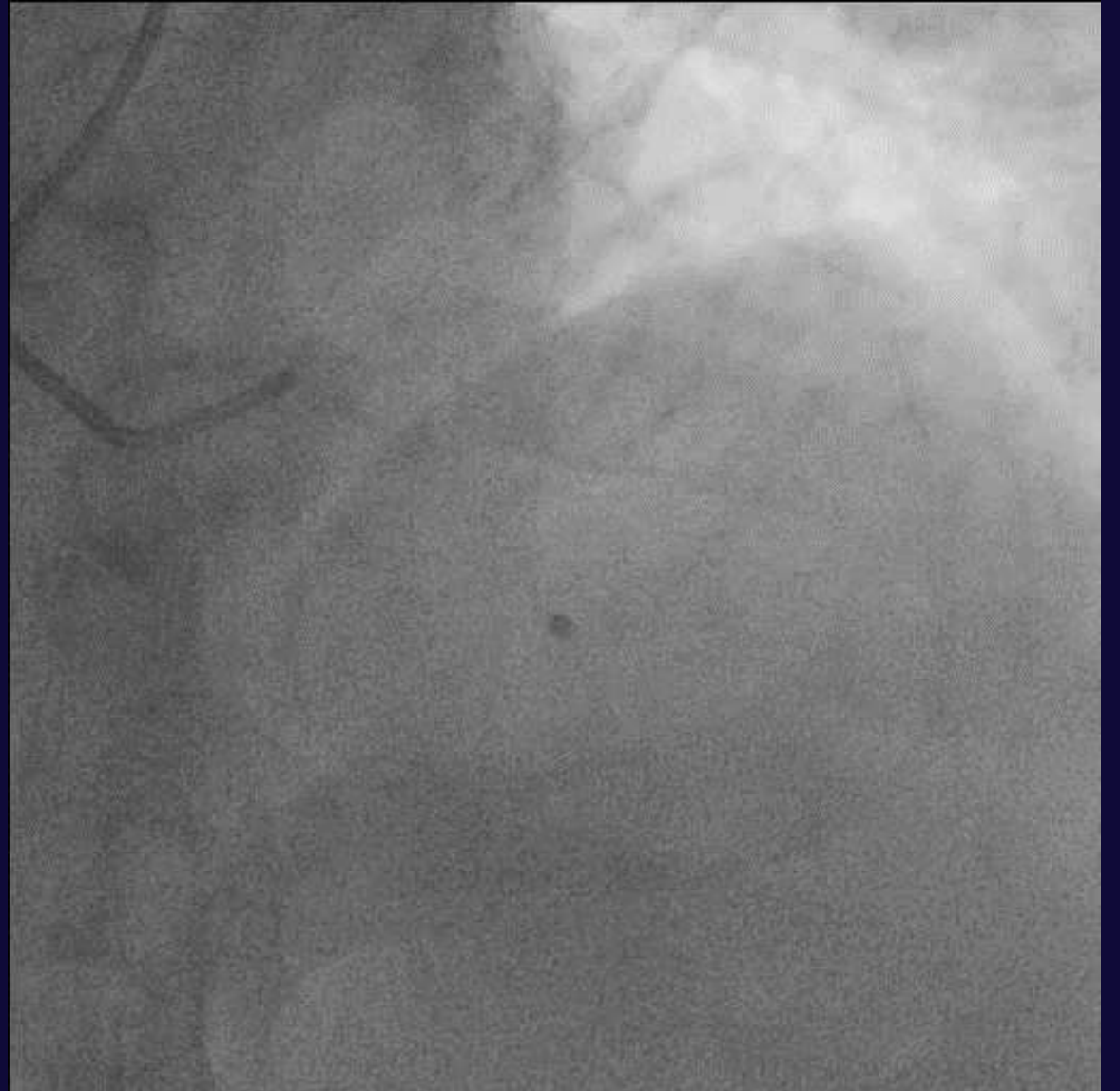
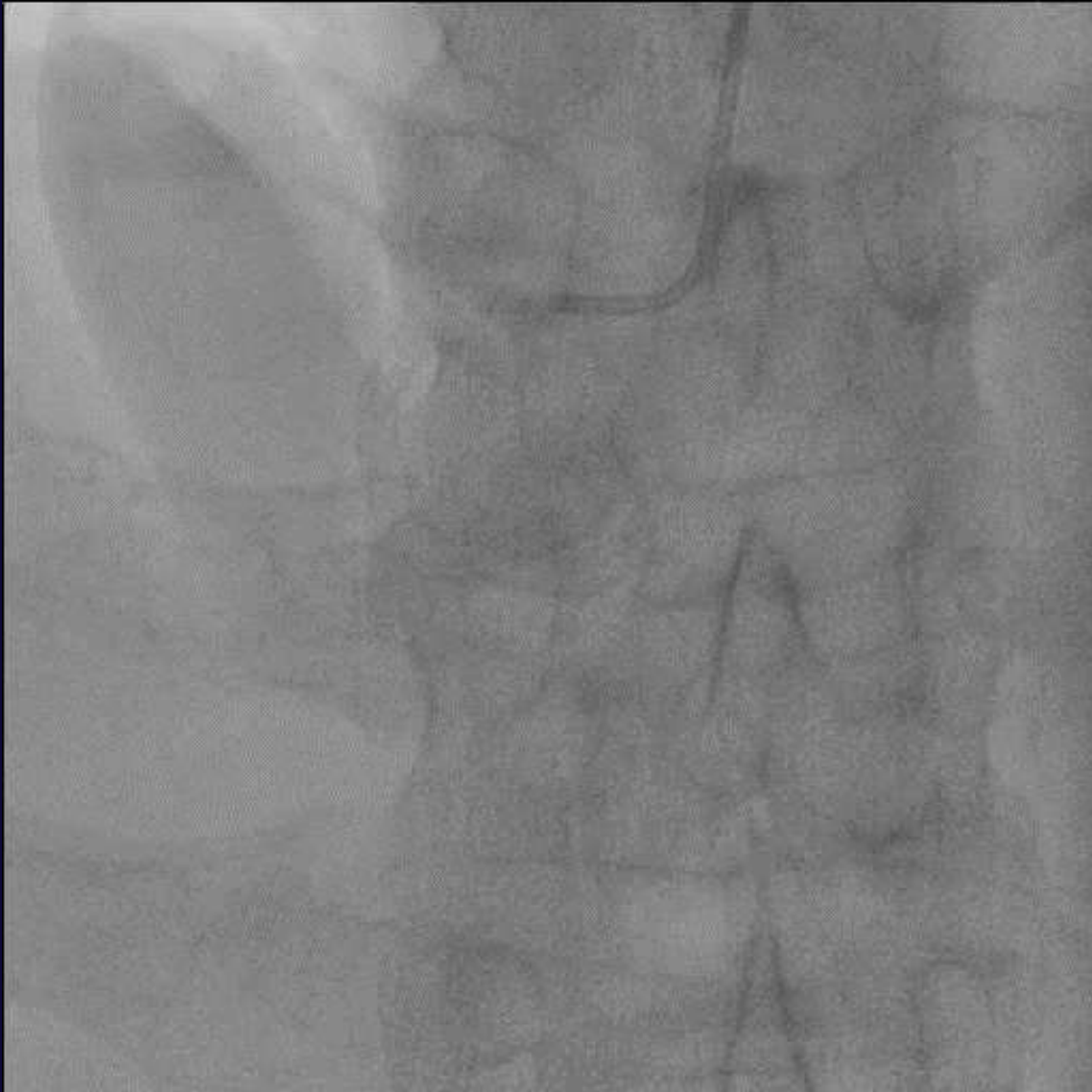
Case

- A 64 year old man, the symptom with complain of angina, if happen during activity and decrease if taking a rest.
- He had hypertension, dyslipidemia, and an ex-smoker.
- No diabetic and no obese.
- Electrocardiography showed q wave in the anterior septal.

Coronary angiography

- Showed a severe lesion and chronic total occlusion (CTO) in the middle of the left anterior descending coronary artery

Corangiography



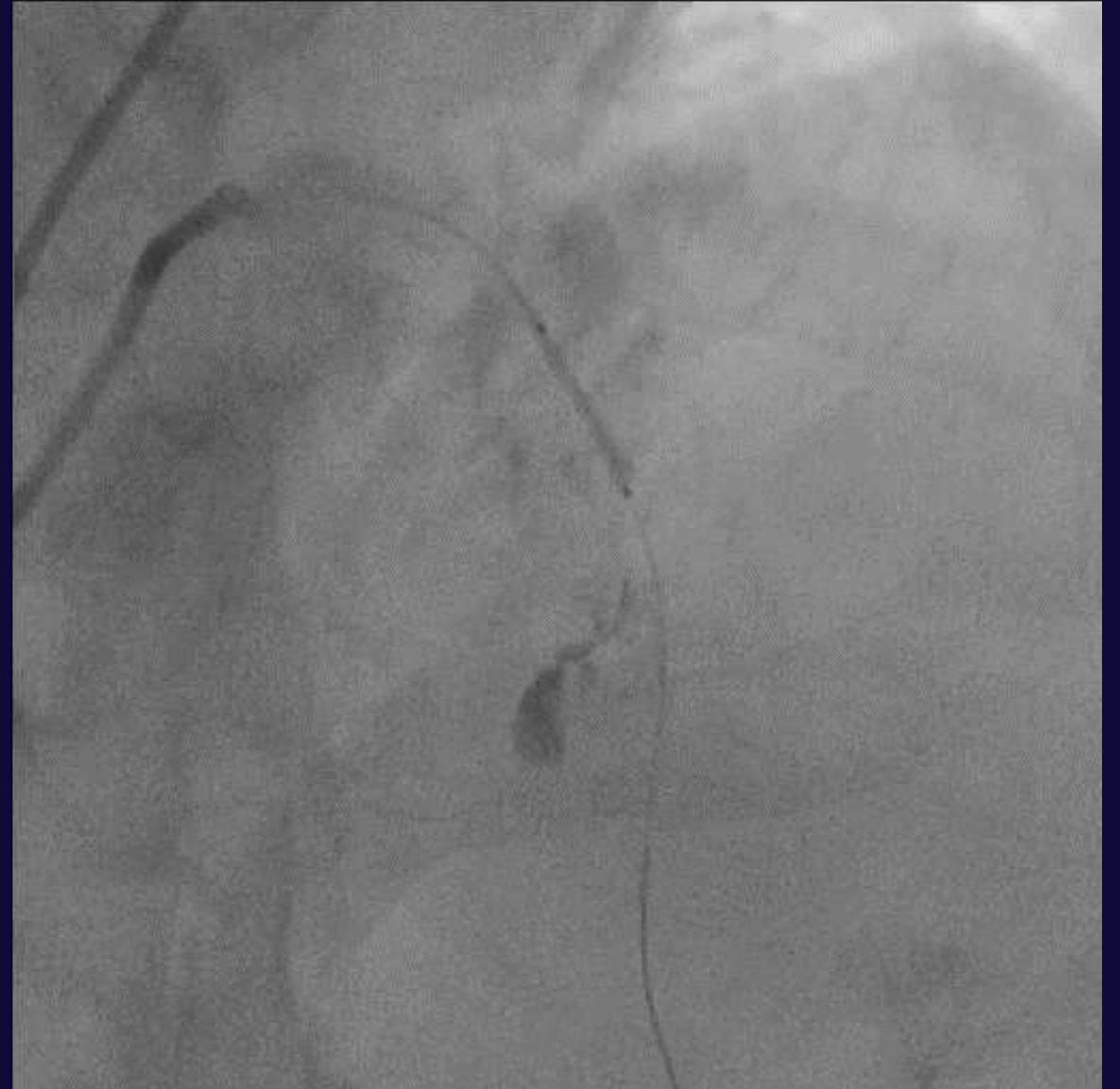
PCI to LAD

- Guiding: AL1 Catheter,
- Wire PILOT 150 to the LAD passes through the CTO and enters the CTO to LAD distally.
- Dilate with a balloon YANGTZE 1.5 x 15 mm at 8 atm for 10 seconds.



A percutaneous coronary intervention was performed with dilated a balloon 1.5 x 15 mm at 8 ATM for 10 seconds. Evaluation appears to have perforations in the CTO area.

Our next step is to prolong balloon
inflation was carried out to hold
blood flow in the CTO for 15
minutes, but there was still a small
perforation



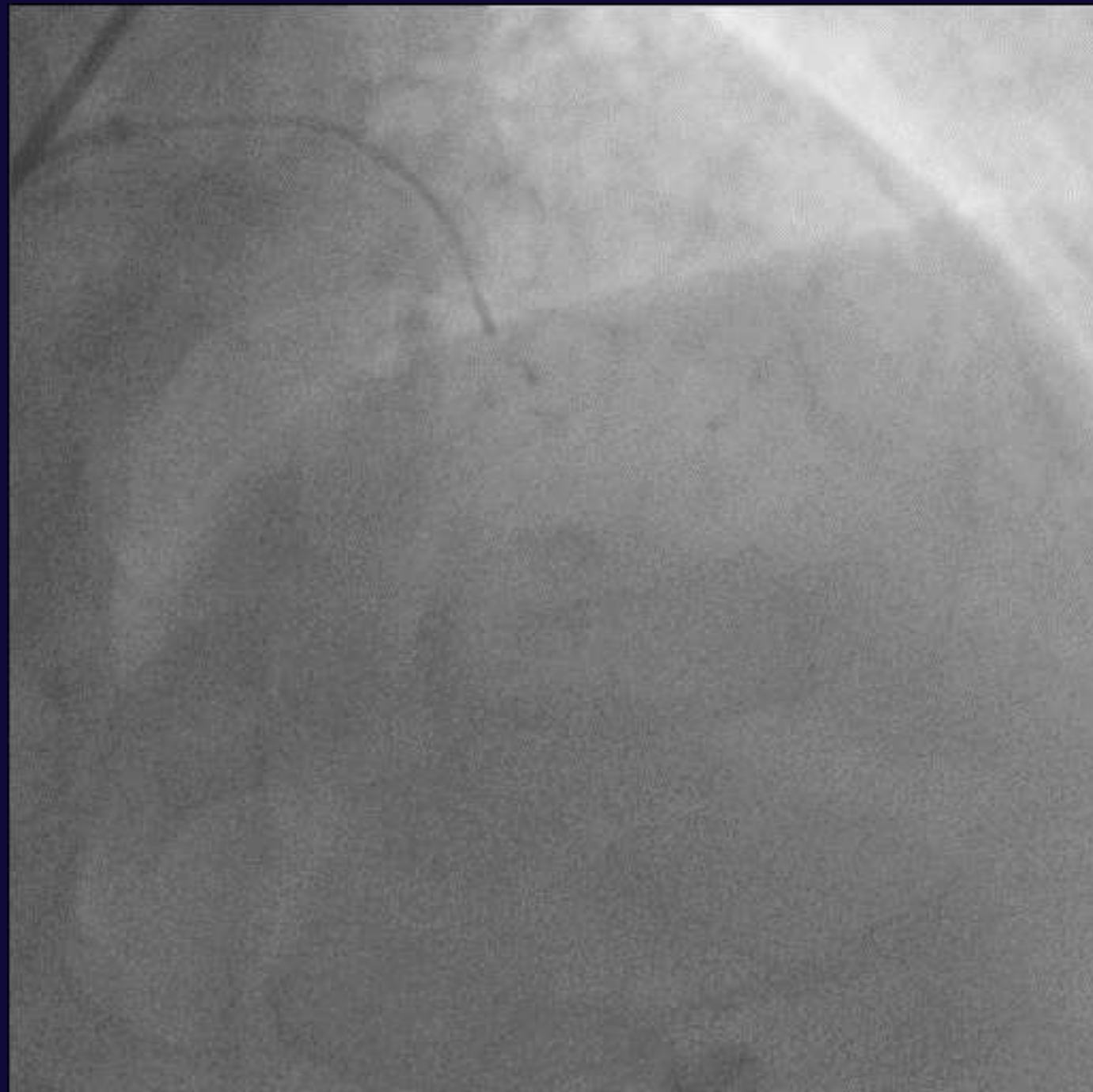


In this phase we had an embolism to the blood vessel with gelatin sponge mixed with a contrast of 1 cc which is injected through the micro-catheter to stop the perforation

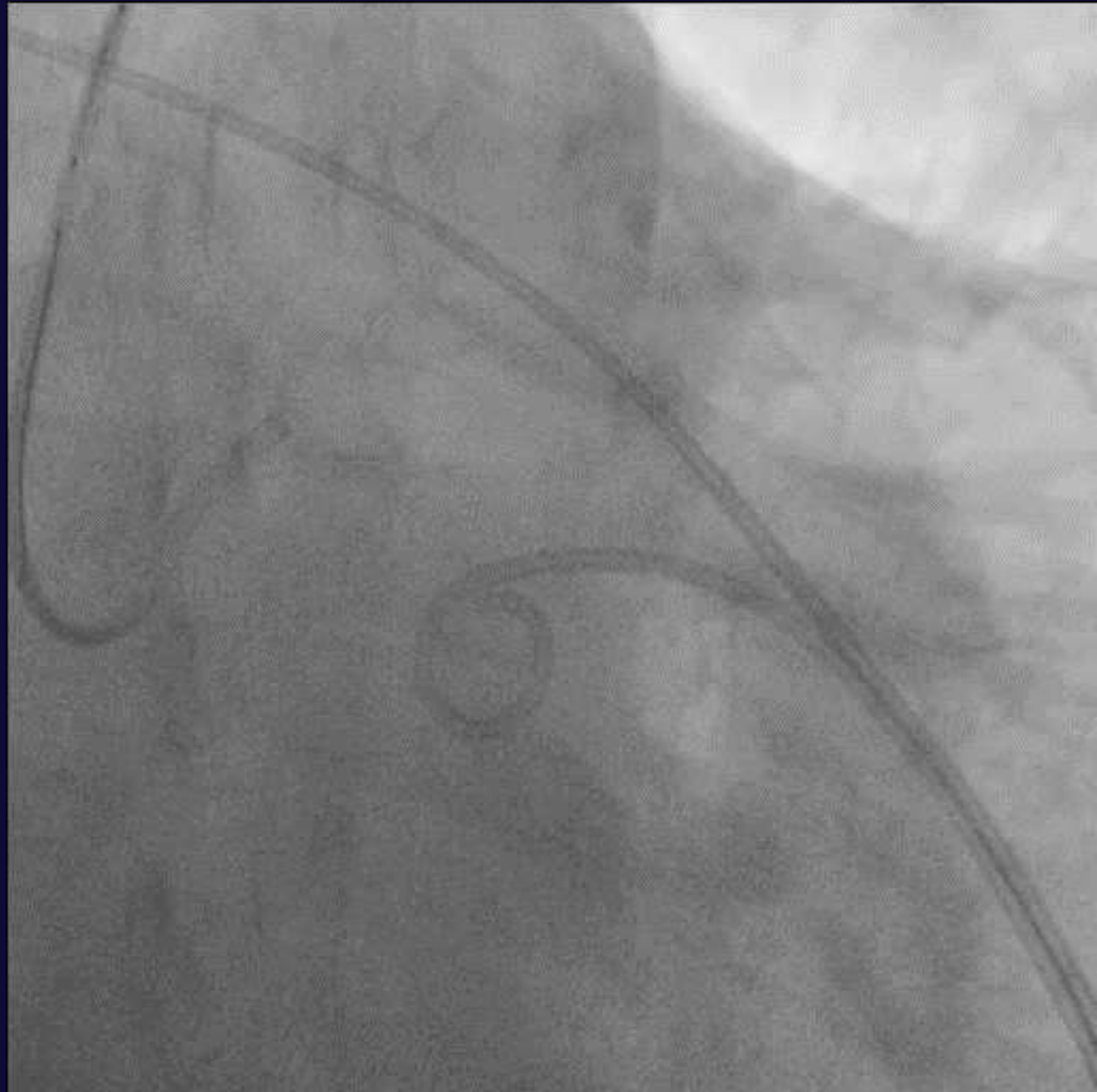
Gelatin sponge

- The sponge were cut in to small pieces
- And mix with contrast and injected through the micro-catheter





Echocardiography evaluation showed there are pericardial effusion, we did pericardiocentesis proceed with Pigtail catheter 6 F and pull out the blood \pm 150 cc.



Conclusion:

- Gelatin sponge can be used for treatment of coronary perforation during angioplasty.

Thank you for your attention