

**LIMA INTERVENTION IN A PATIENT
PRESENTING WITH CARDIOGENIC SHOCK
USING IMPELLA LV ASSIST DEVICE
SUPPORT**

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CLINICAL PROFILE

- 67 years old gentleman, Hypertensive, Diabetic, non smoker, with family history of ischemic heart disease, known case of Coronary Artery Disease, Post CABG x 1 (LIMA to LAD) in 2003, LVEF-25%, Positive stress thallium for RMI in LAD territory and infarcted Inferior and lateral wall . Presented with Unstable Angina .
- On admission ECG showed marked ST-T changes.
- Patient was initially stabilized with medical management and
- An IABP was inserted the same day because of poor LV function, ongoing angina and persistent ST-T changes.
- He was also started on eptifibatide infusion.

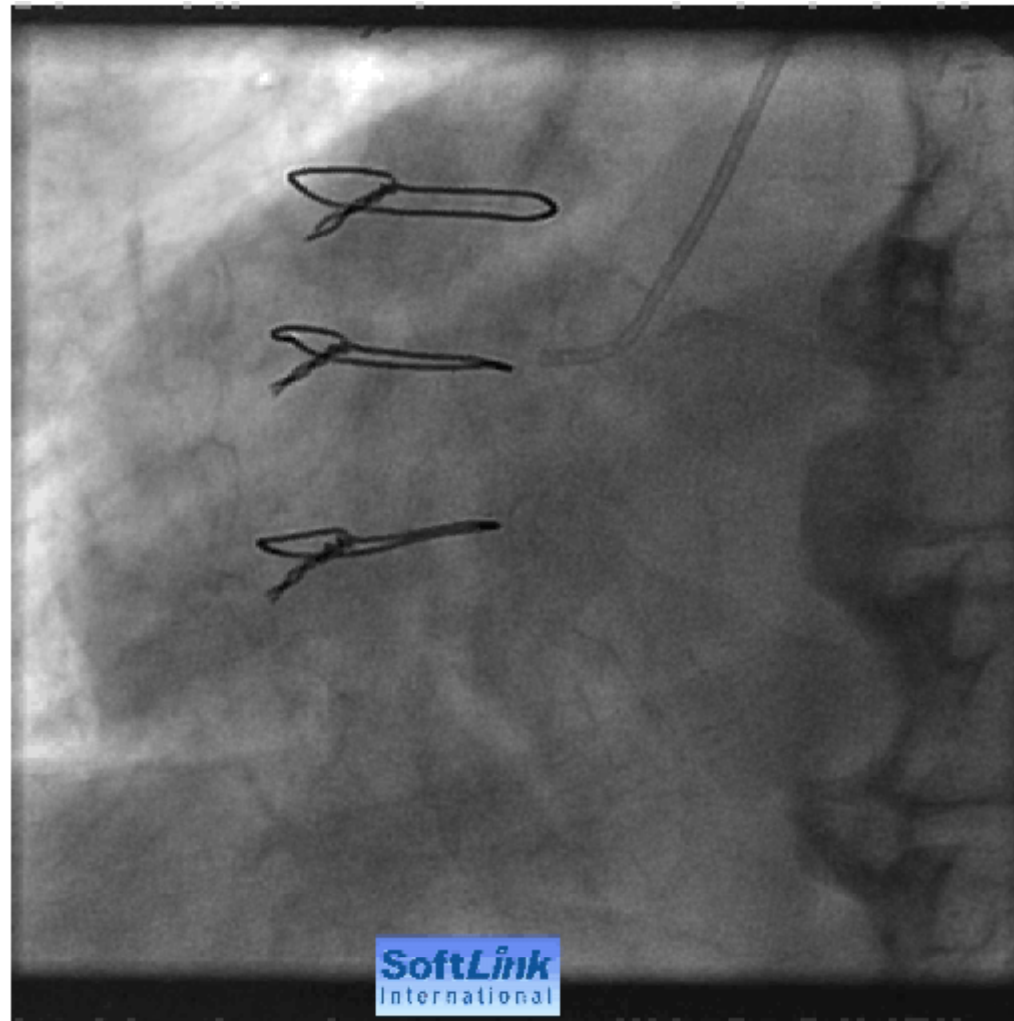
COURSE IN HOSPITAL

- Coronary angiography was done on day 2 which revealed severe native triple vessel disease with patent LIMA to LAD graft with LAD 70-80 % stenosis just distal to LIMA anastomatic graft.
- It was then decided to manage the patient with optimal medical management. IABP was removed on day 3. He was progressing well subsequently,
- on day 5 , he had again chest pain, hypotension and frequent sinus pauses.
- Inotropes were immediately started and temporary pacemaker was inserted. Since hypotension was persistent, despite inotropes, IABP was reinserted on day 5.
- In view of ongoing hemodynamic instability patient was taken up for high risk angioplasty with **Impella** LV support system on day 9

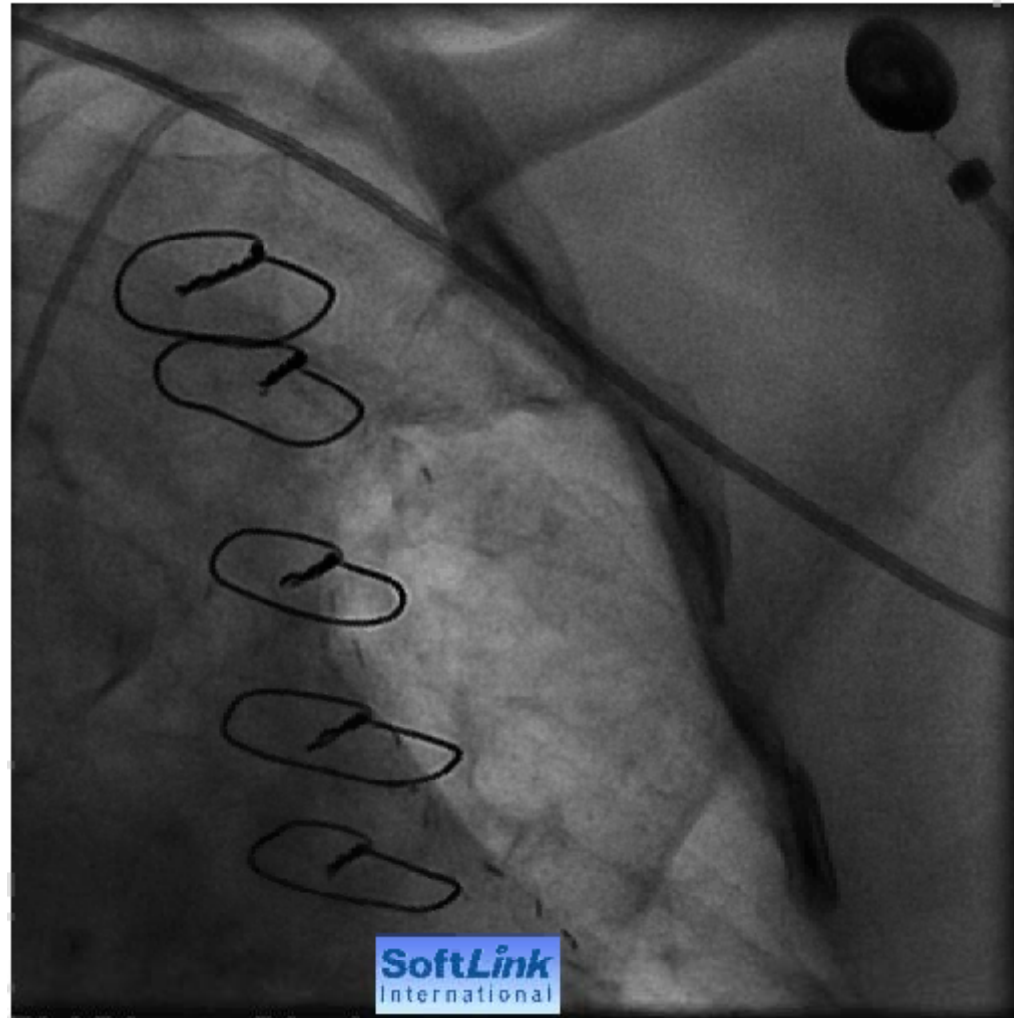
Coronary Angiography – Native TVD



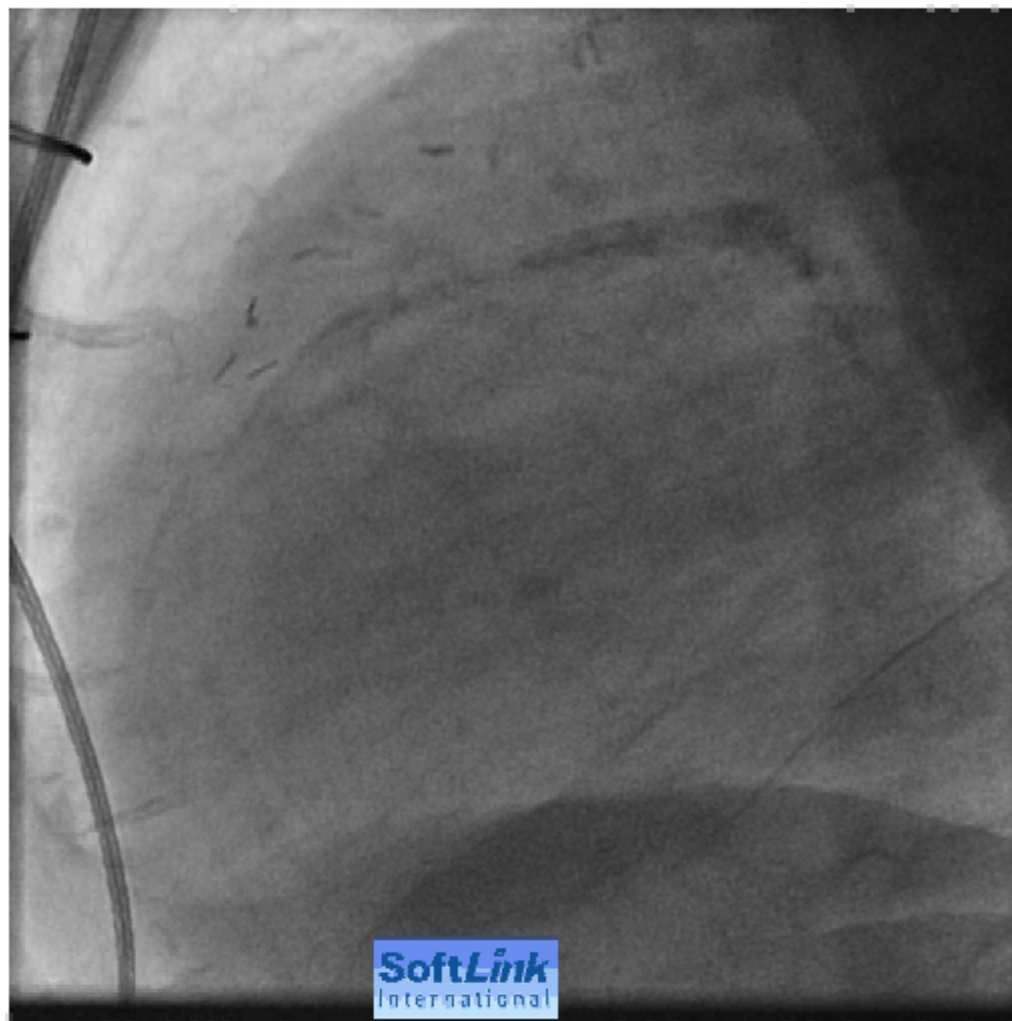
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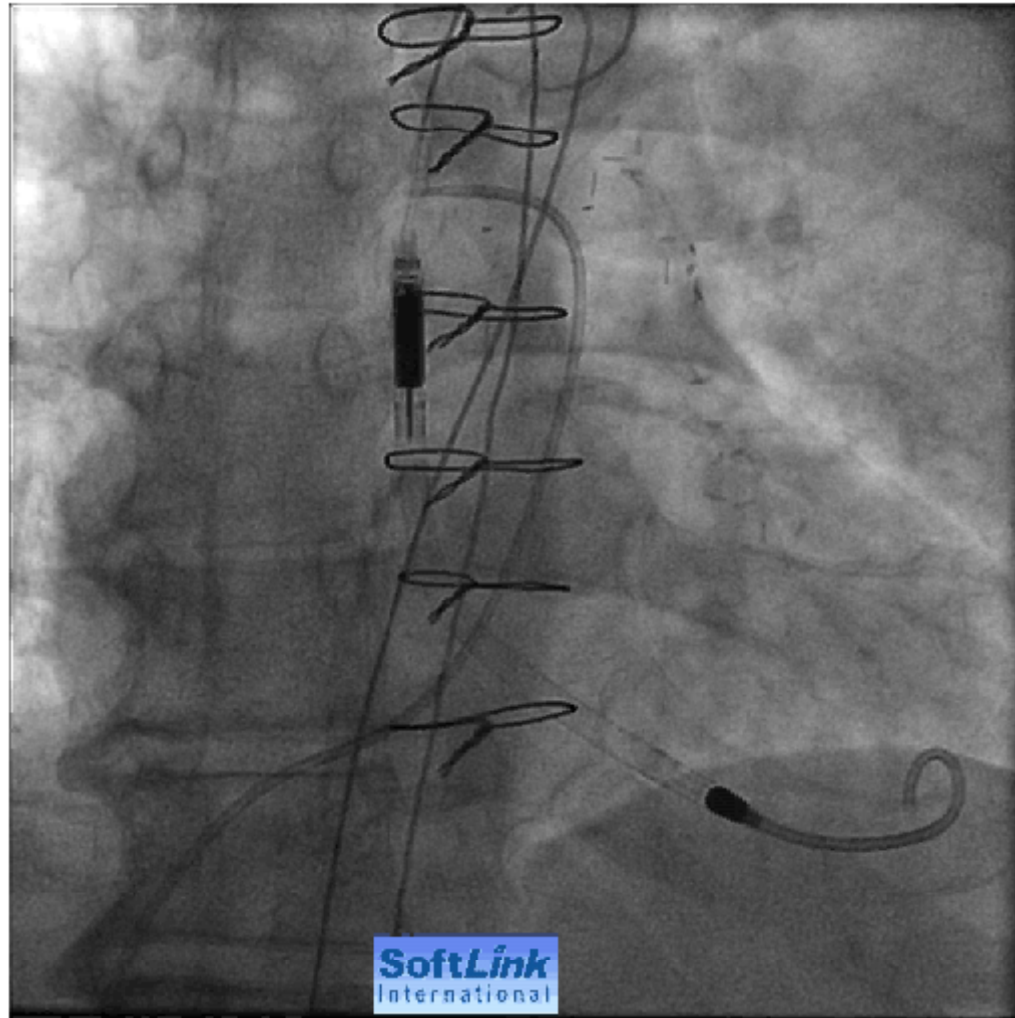
Coronary Angiography –PATENT LIMA BUT LAD 70-80% JUST DISTAL TO LIMA



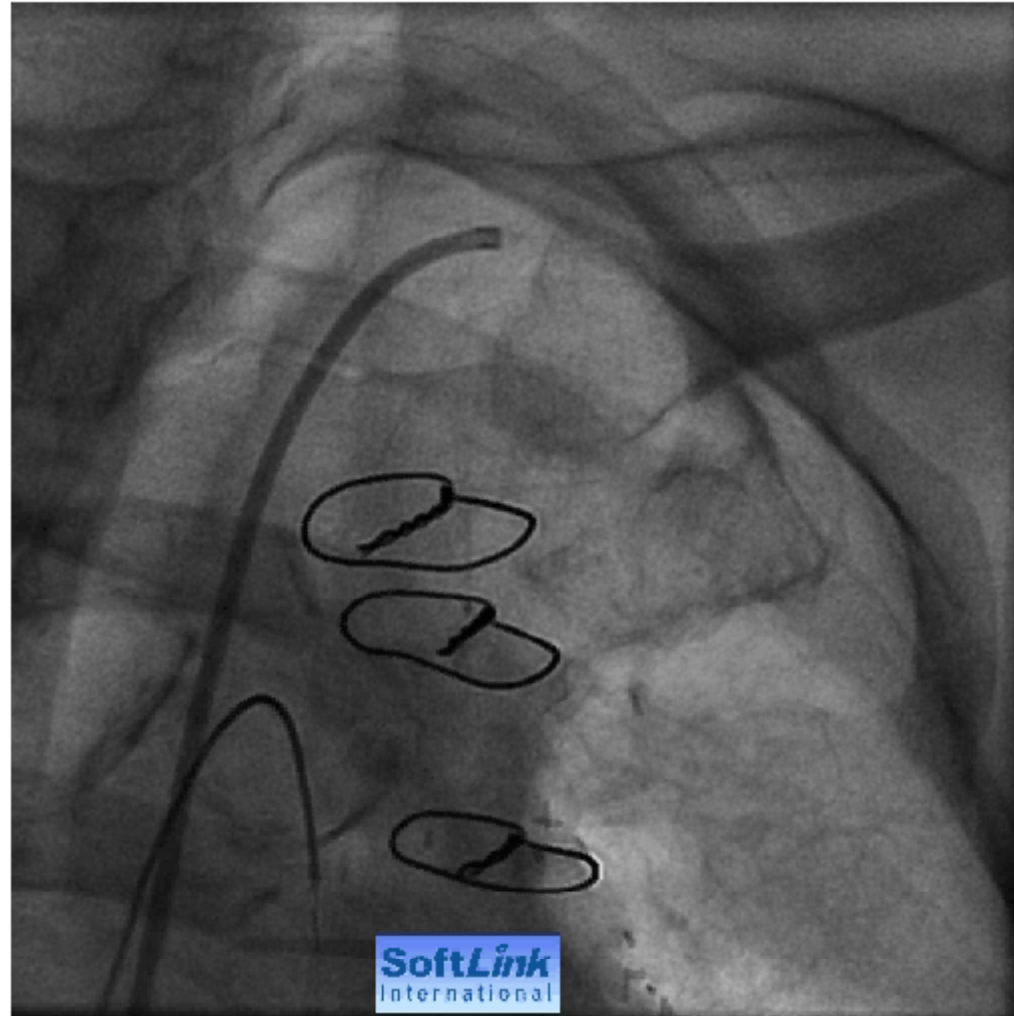
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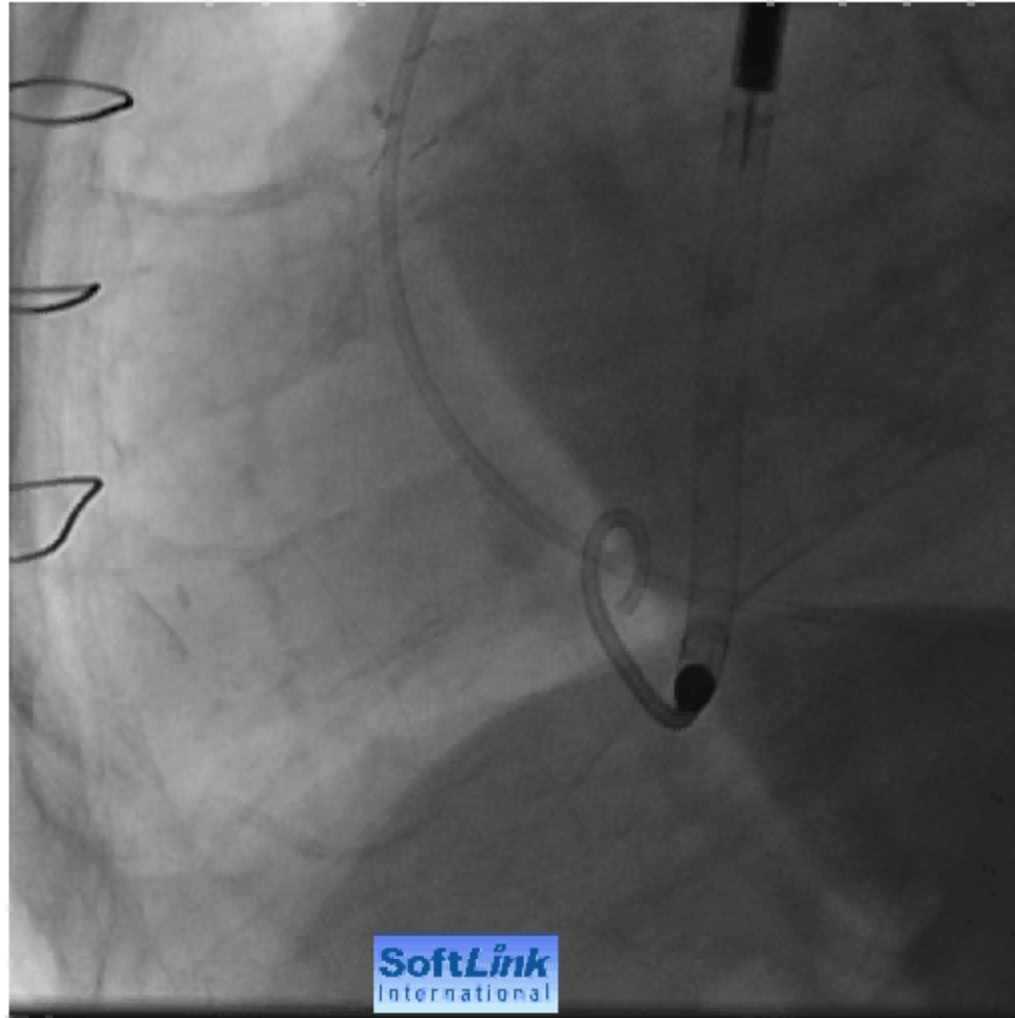
Impella Device placed



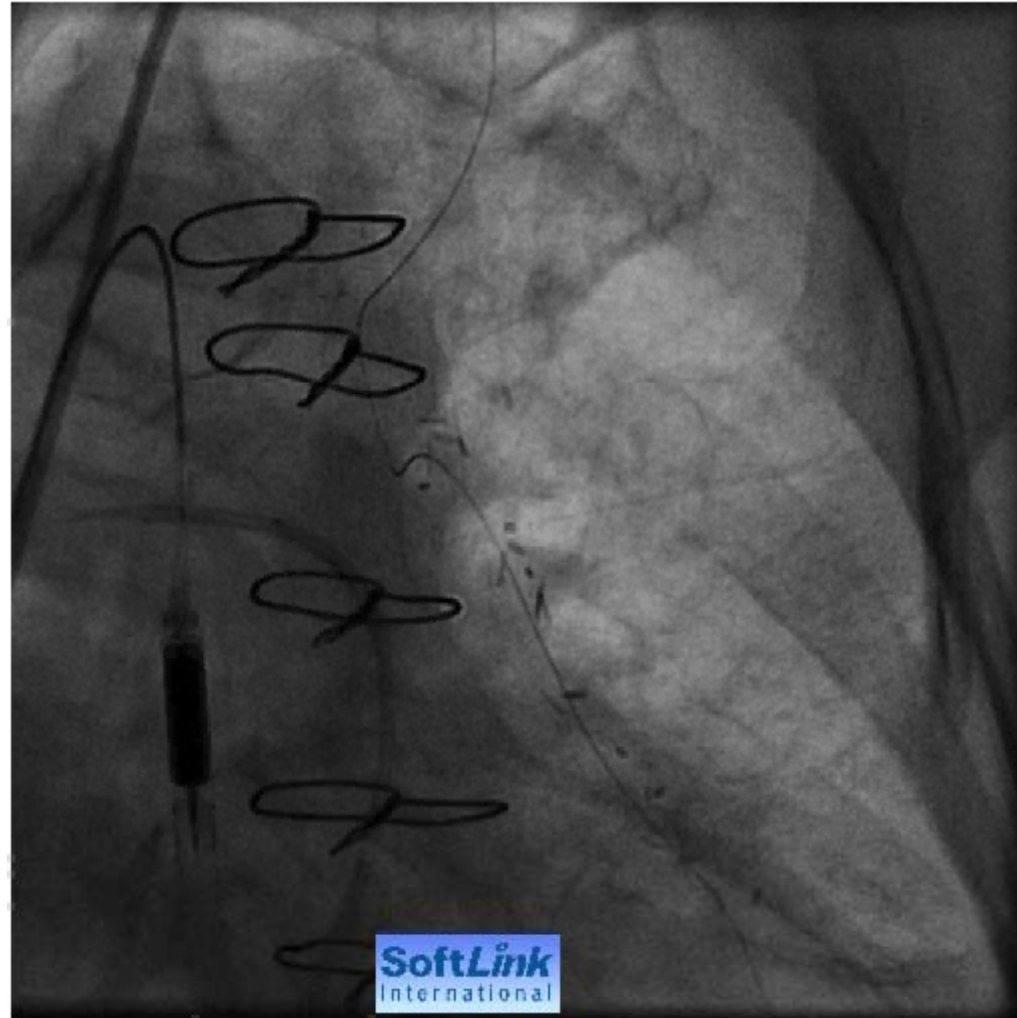
LIMA-LAD Angiogram



LIMA-LAD Angiogram

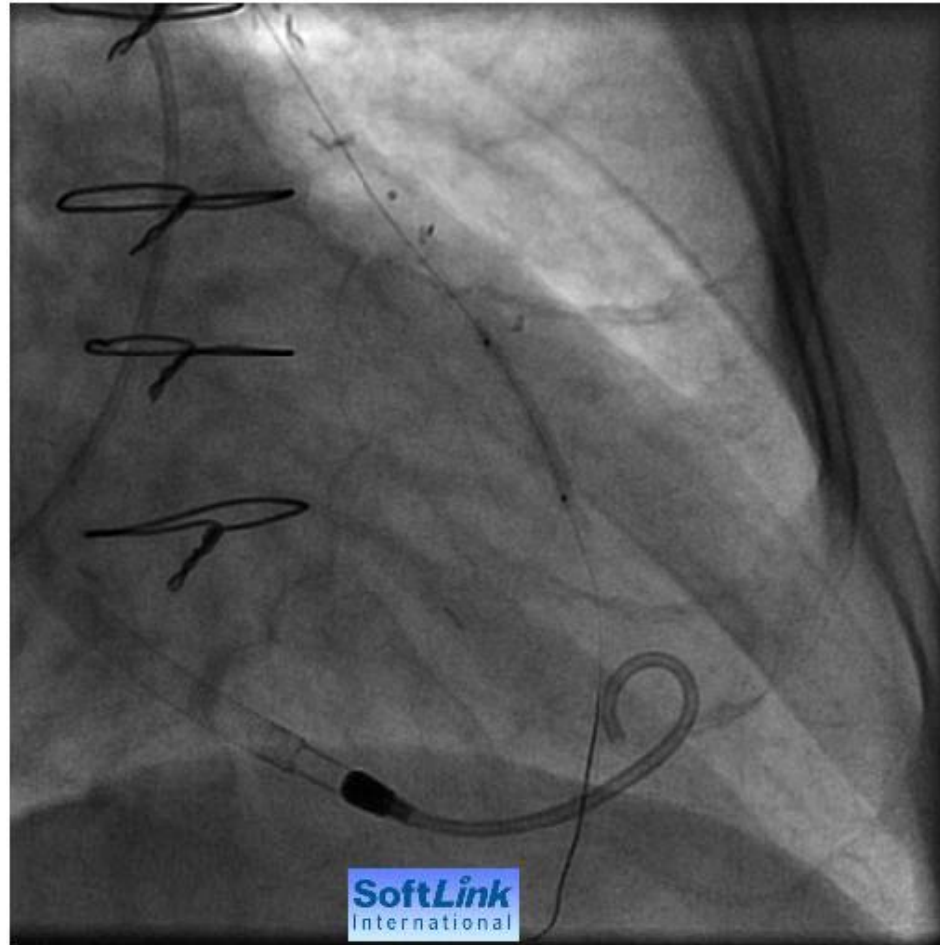


Predilatation



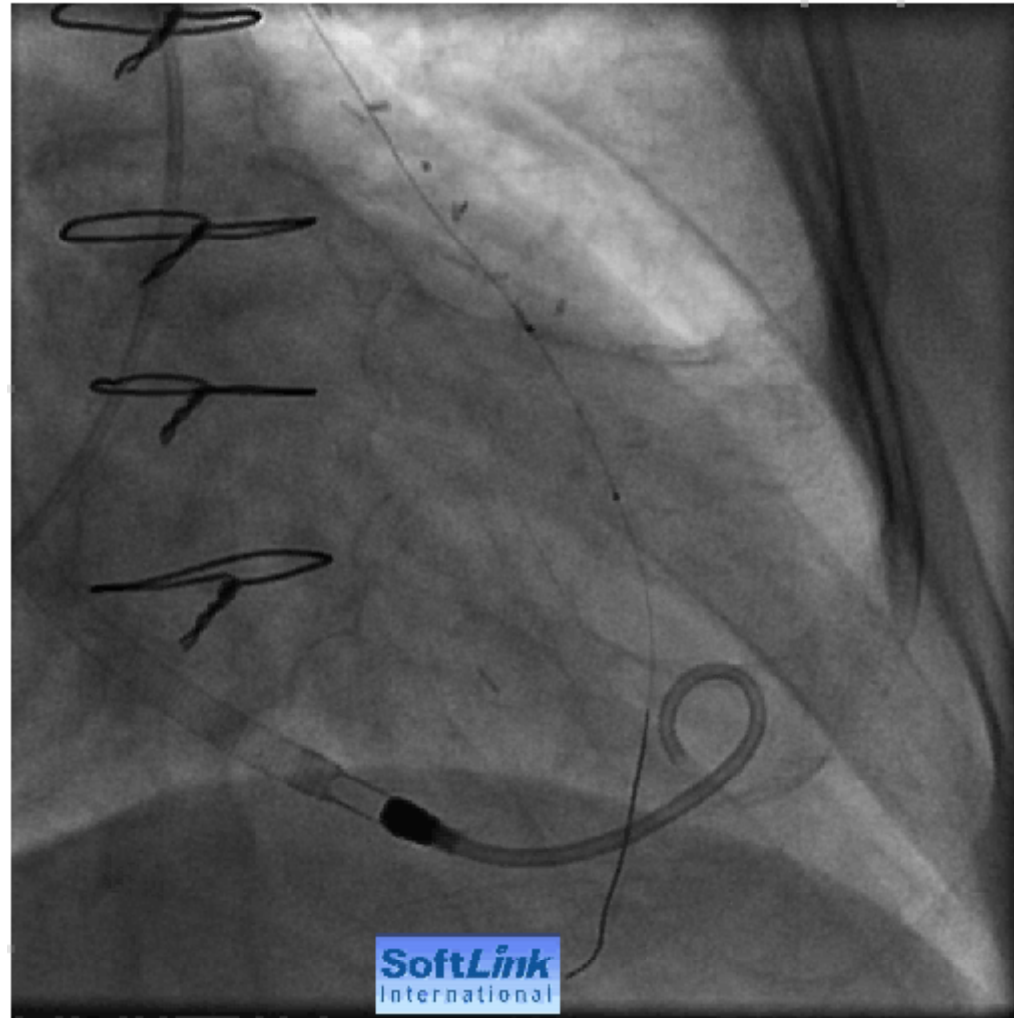
Over BMW guidewire Voyager 2.00 x 20mm

Predilatation

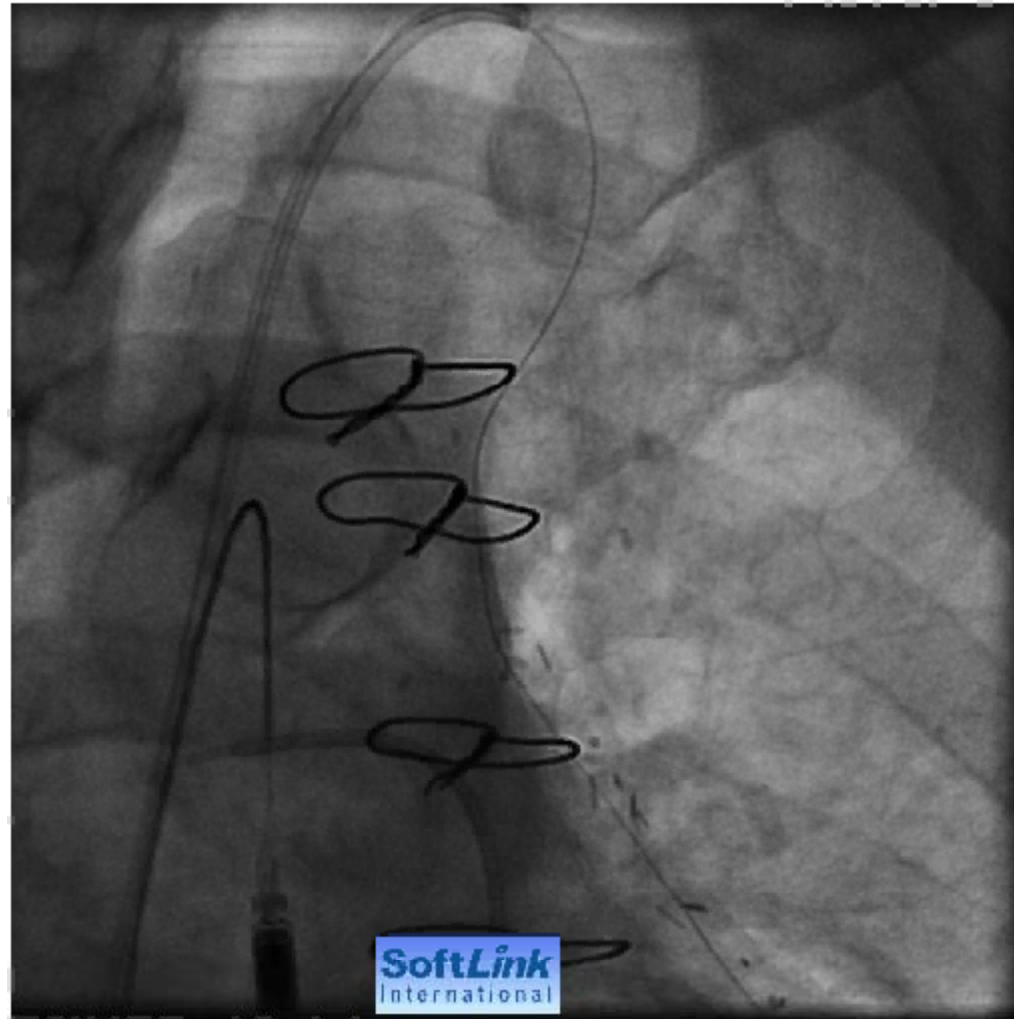


BMW guidewire Voyager 2.00 x 20mm

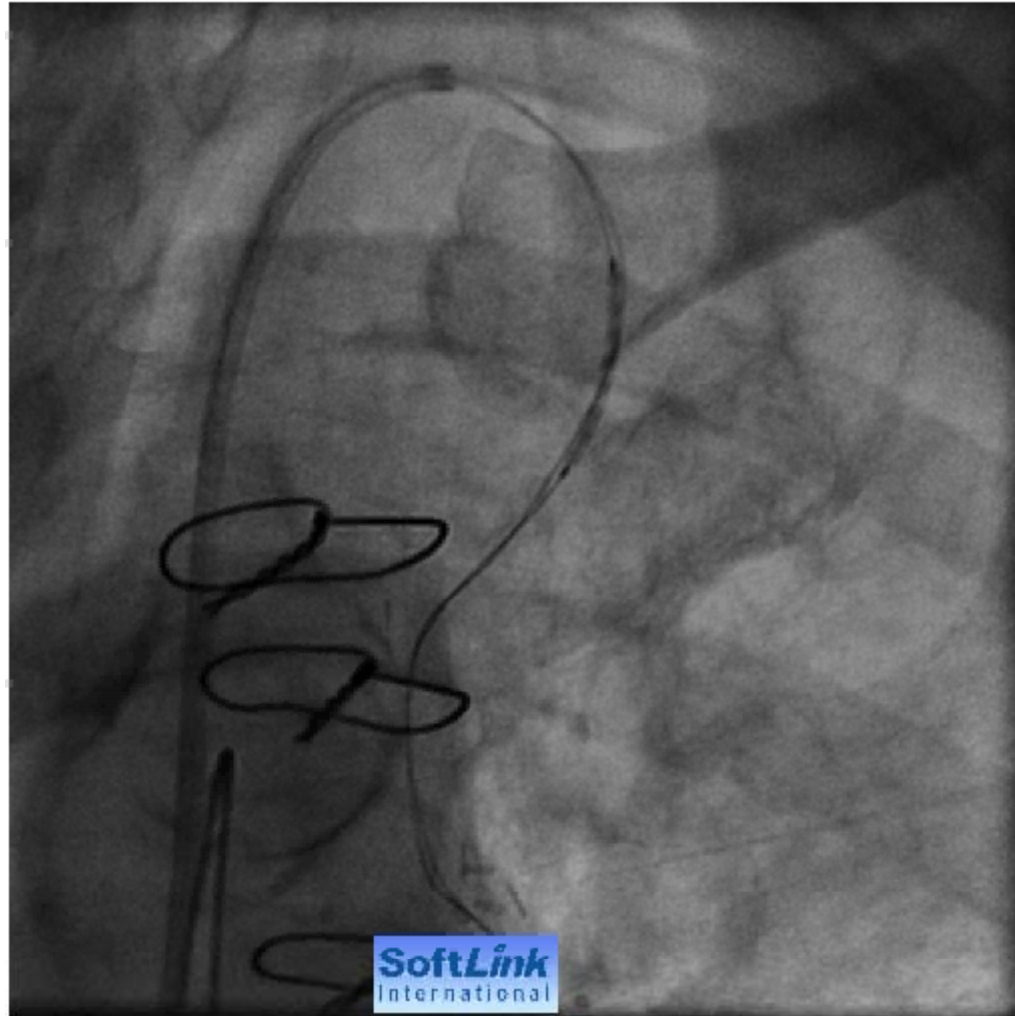
RESULT OF PREDILATION



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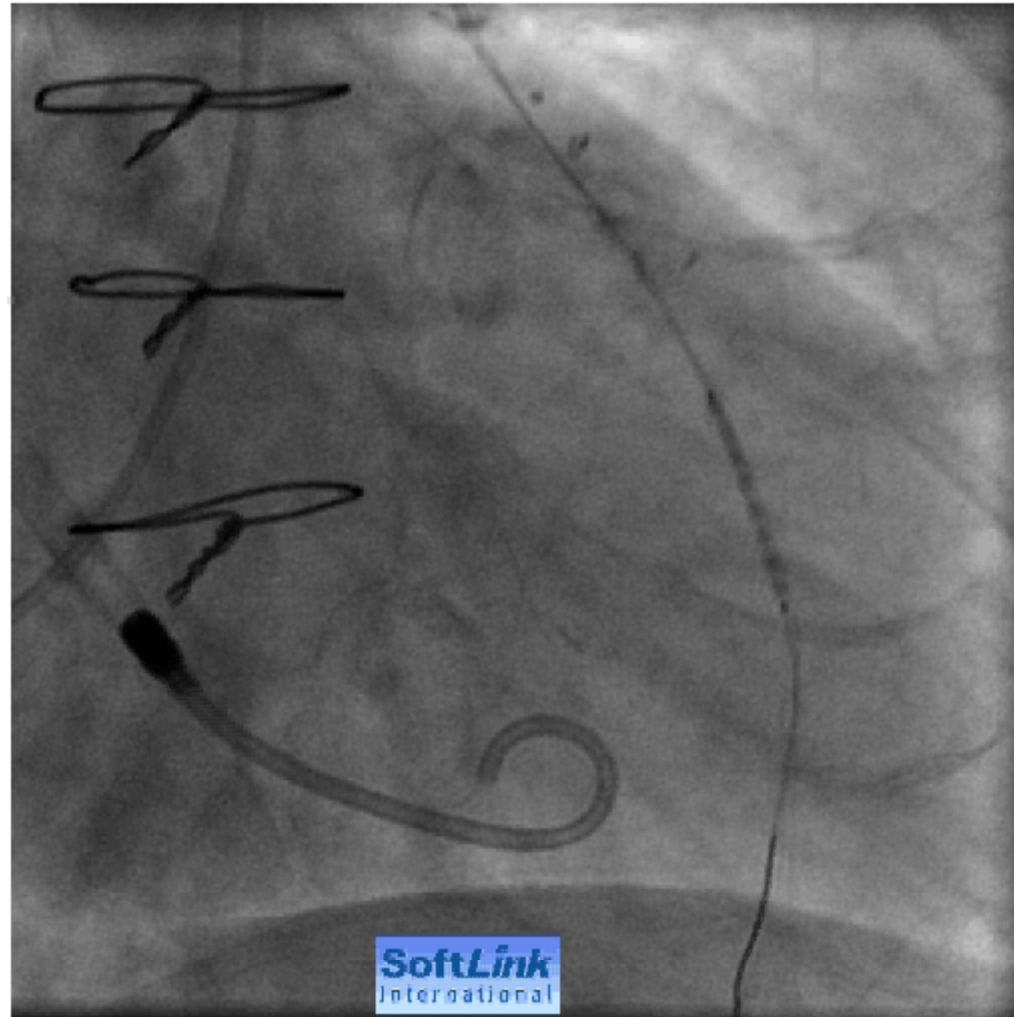


LAD Stented with cypher 2.5x18 using Buddy Wire technique

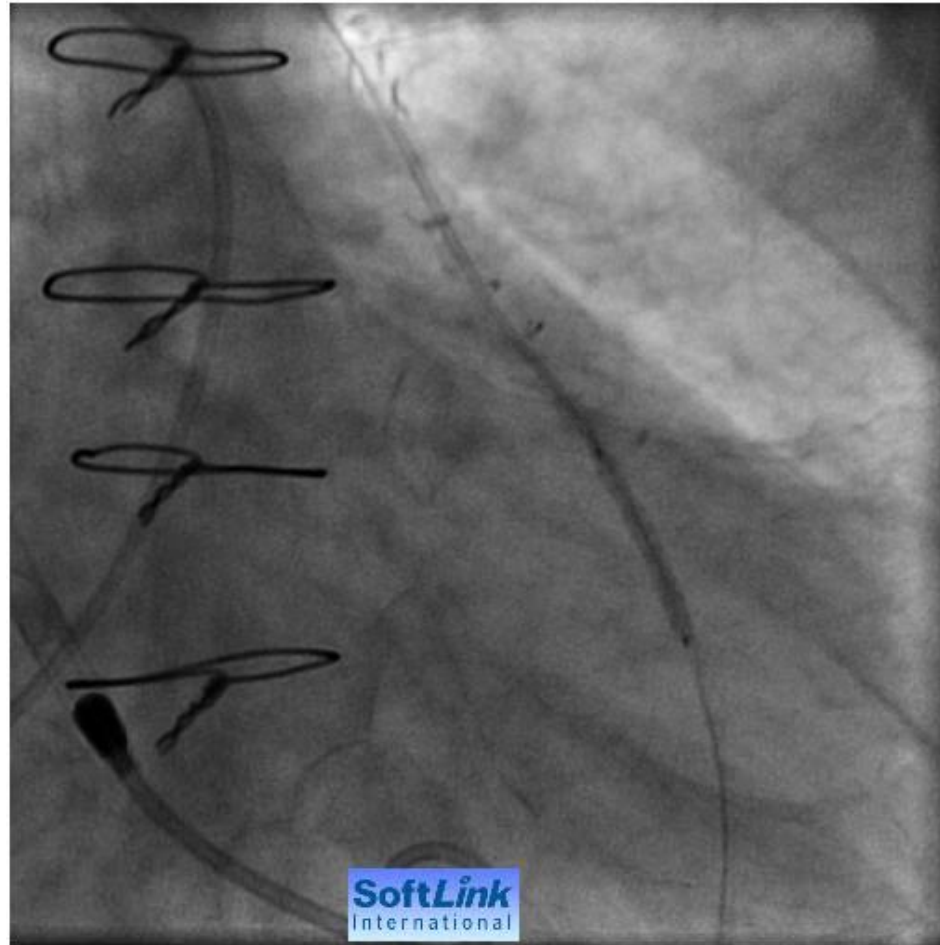


Another BMW guidewire used as Buddy wire

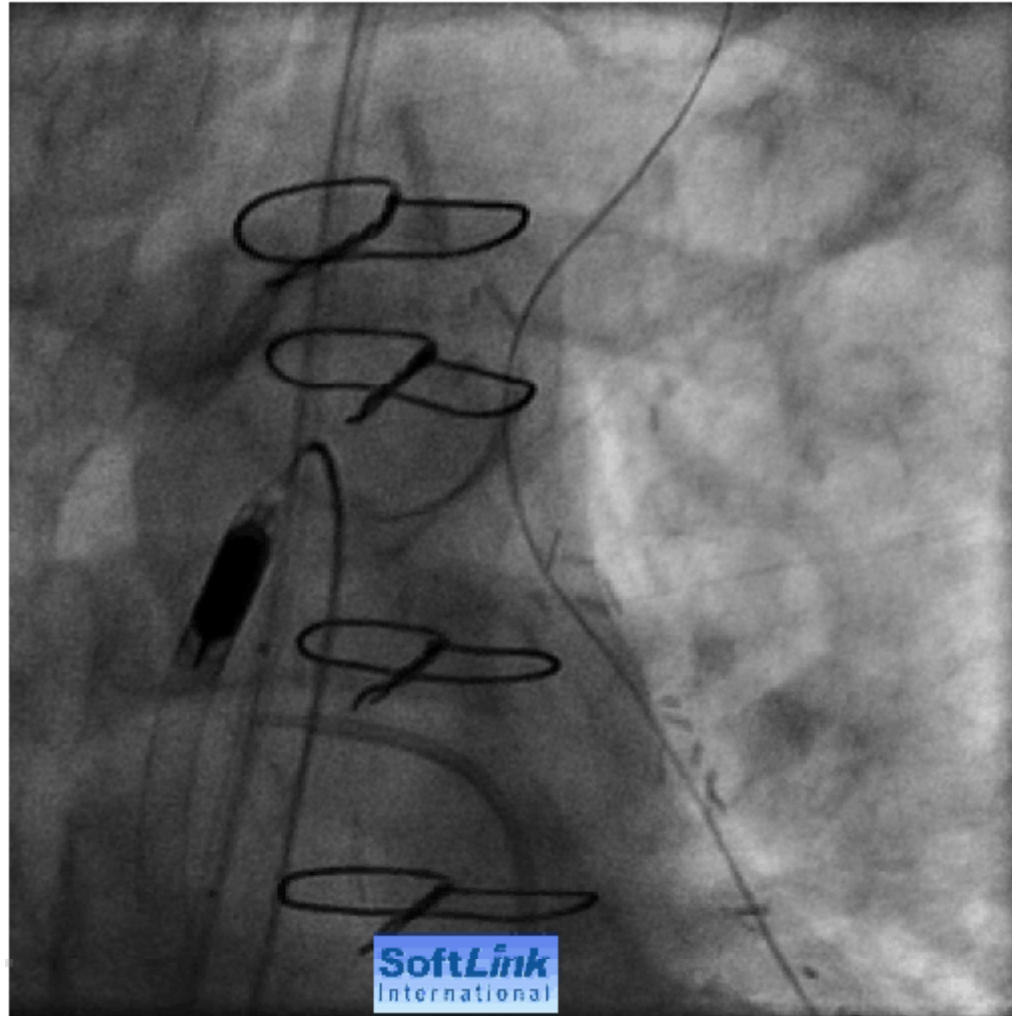
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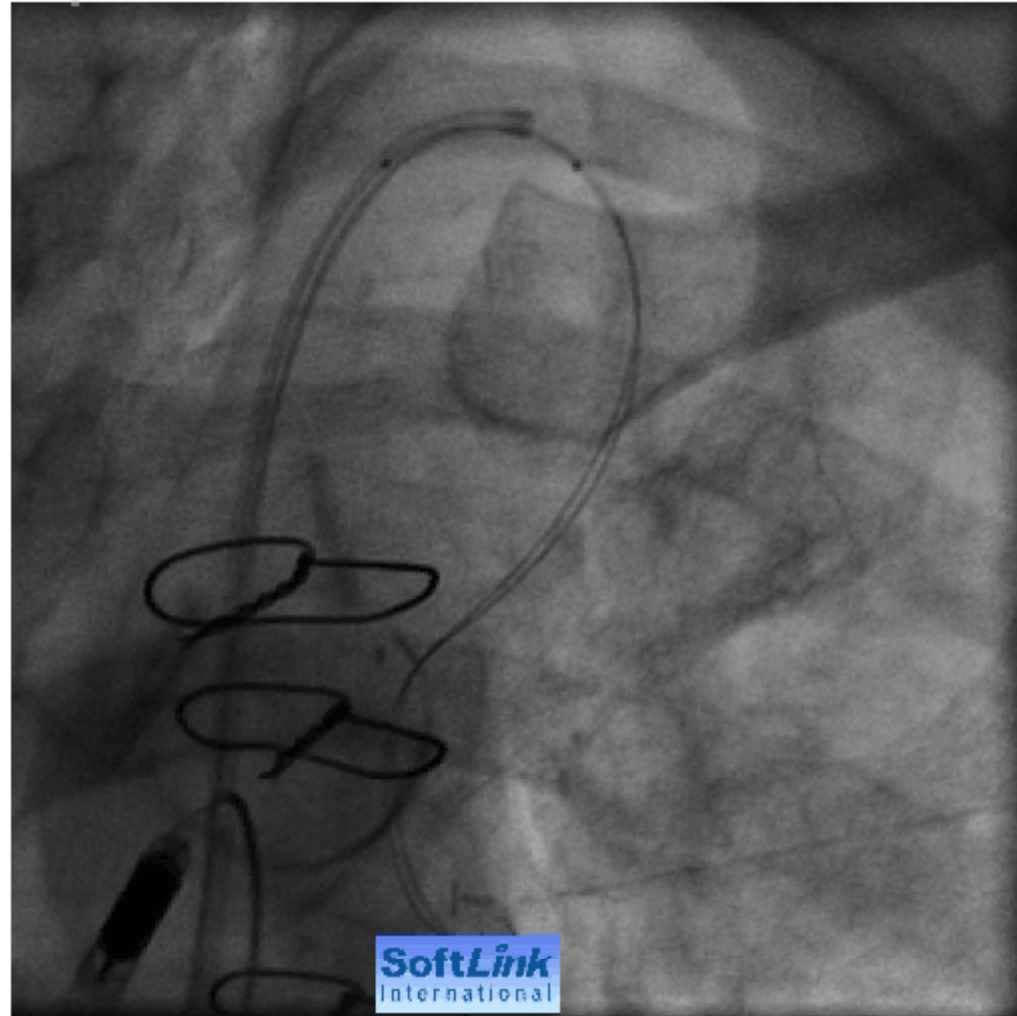
STENT DEPLOYMENT



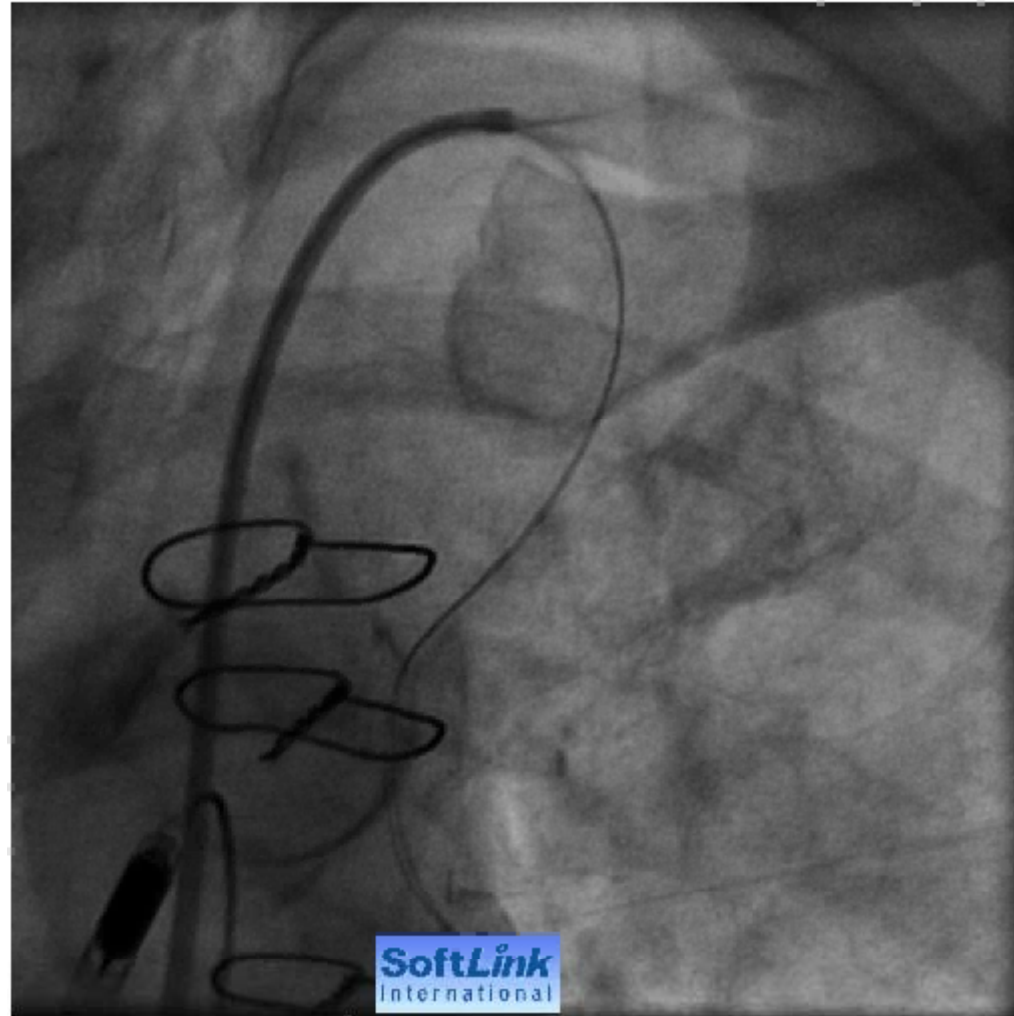
RESULT OF STENT DEPLOYMENT



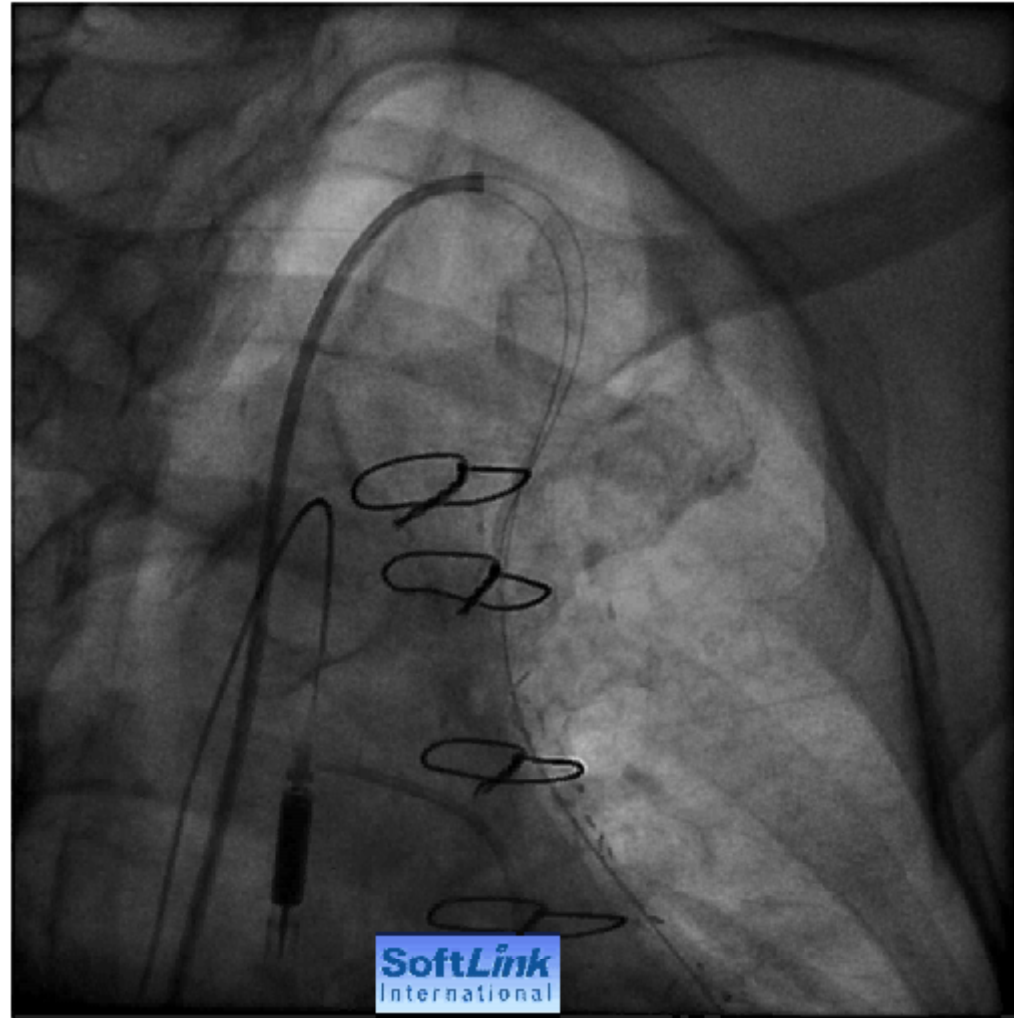
Difficult Buddy Wire Removal – Severe Spasm & dissection of LIMA



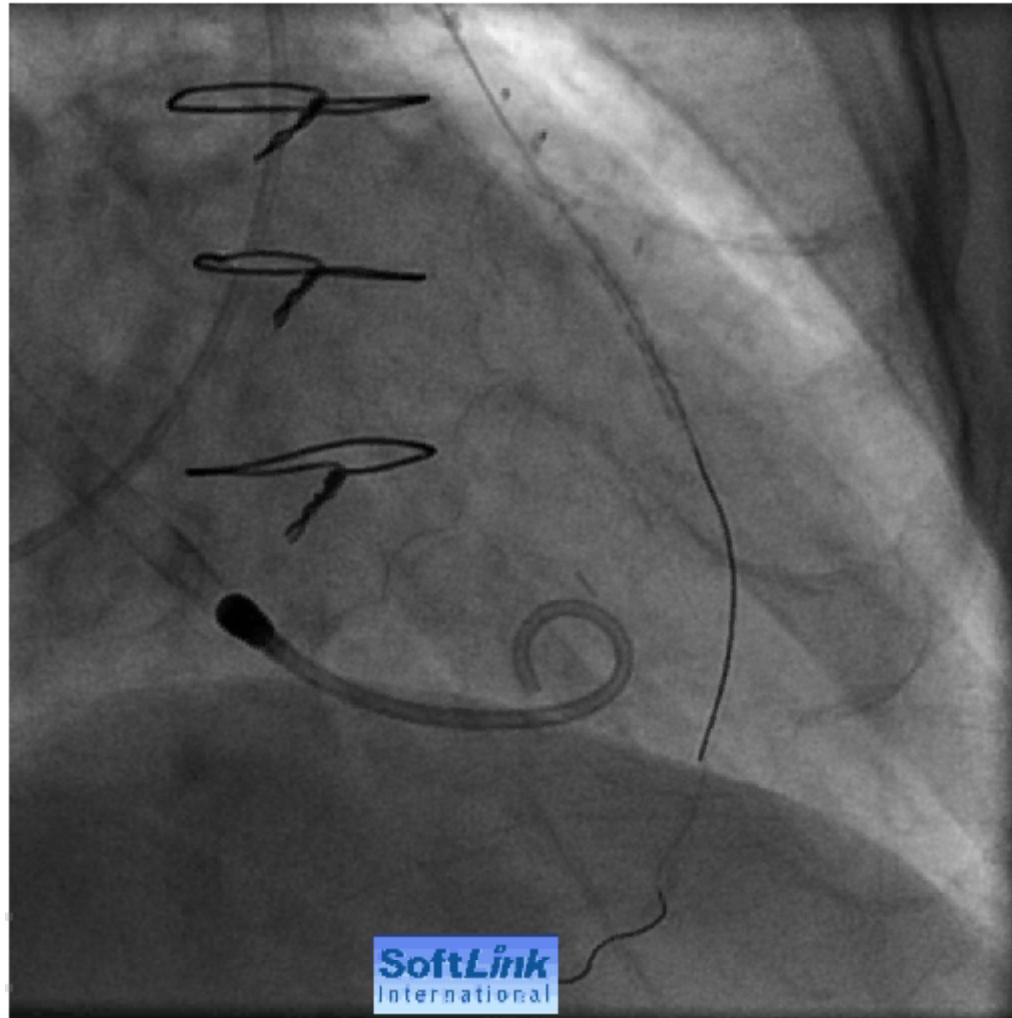
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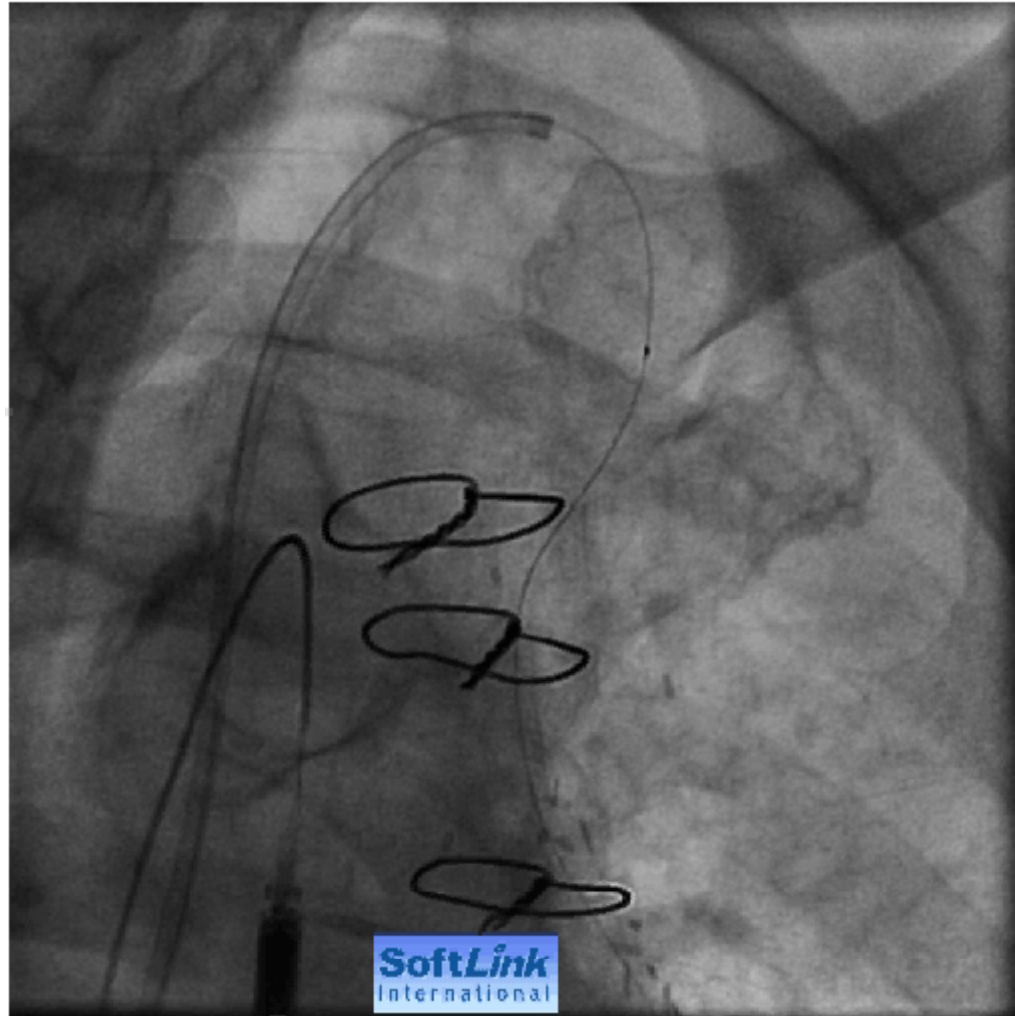
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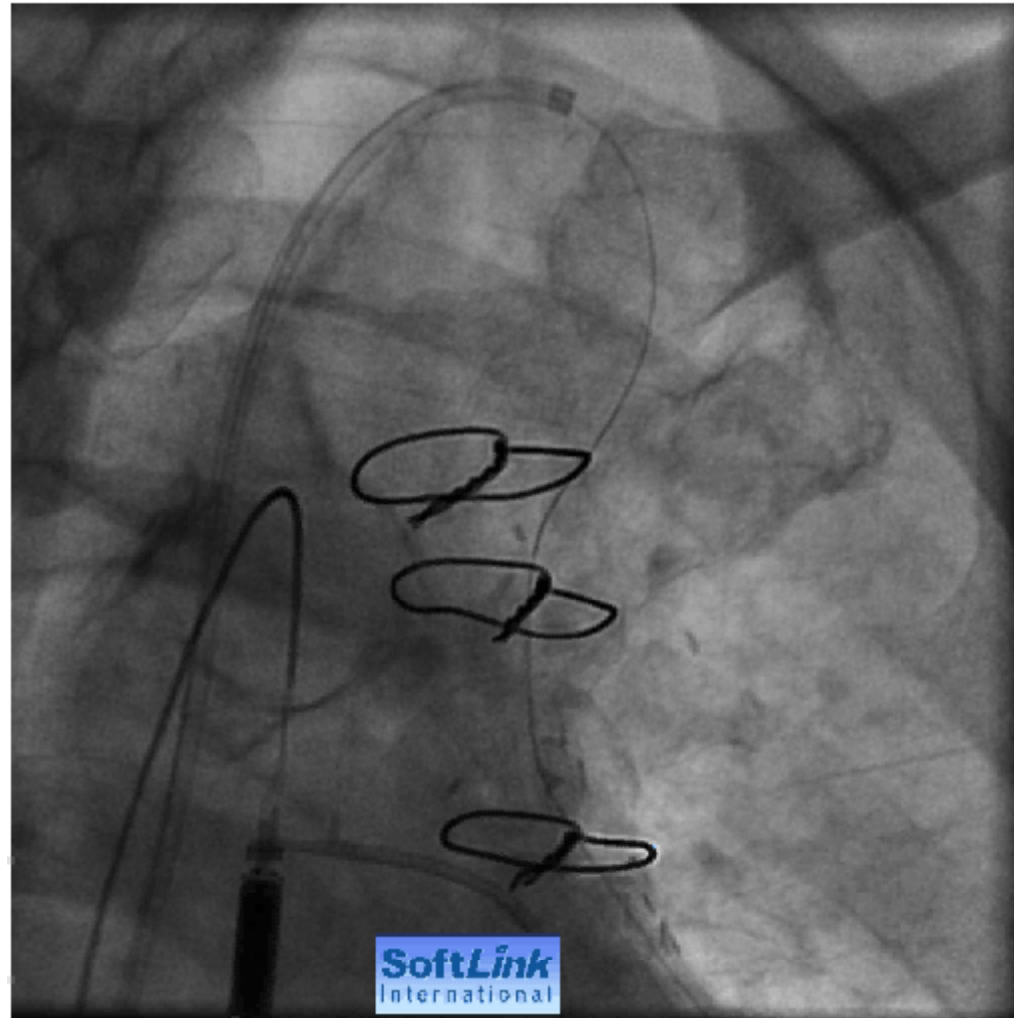
Jailed buddy wire removed after I/C
vasodilators, various maneuvers



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vasodilators, various maneuvers



DISSECTED LIMA

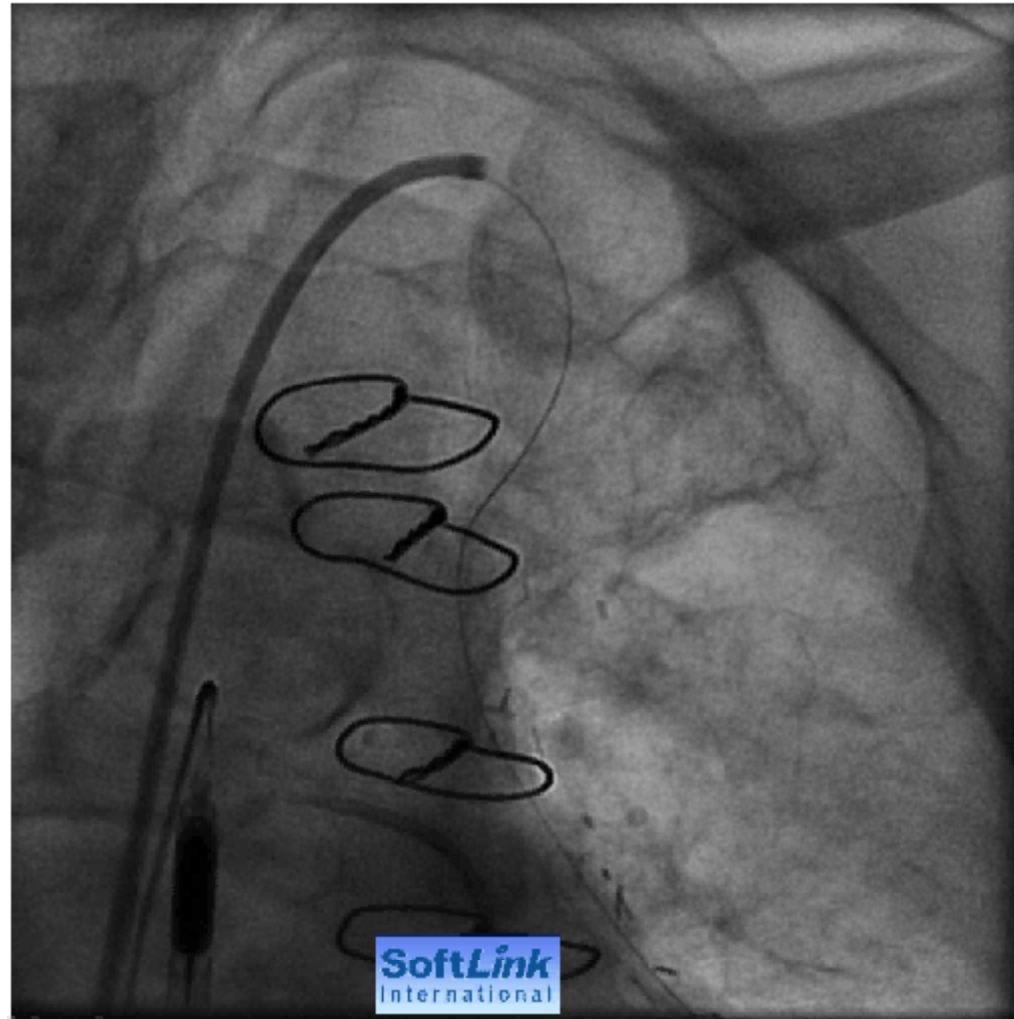


Post Dilatation

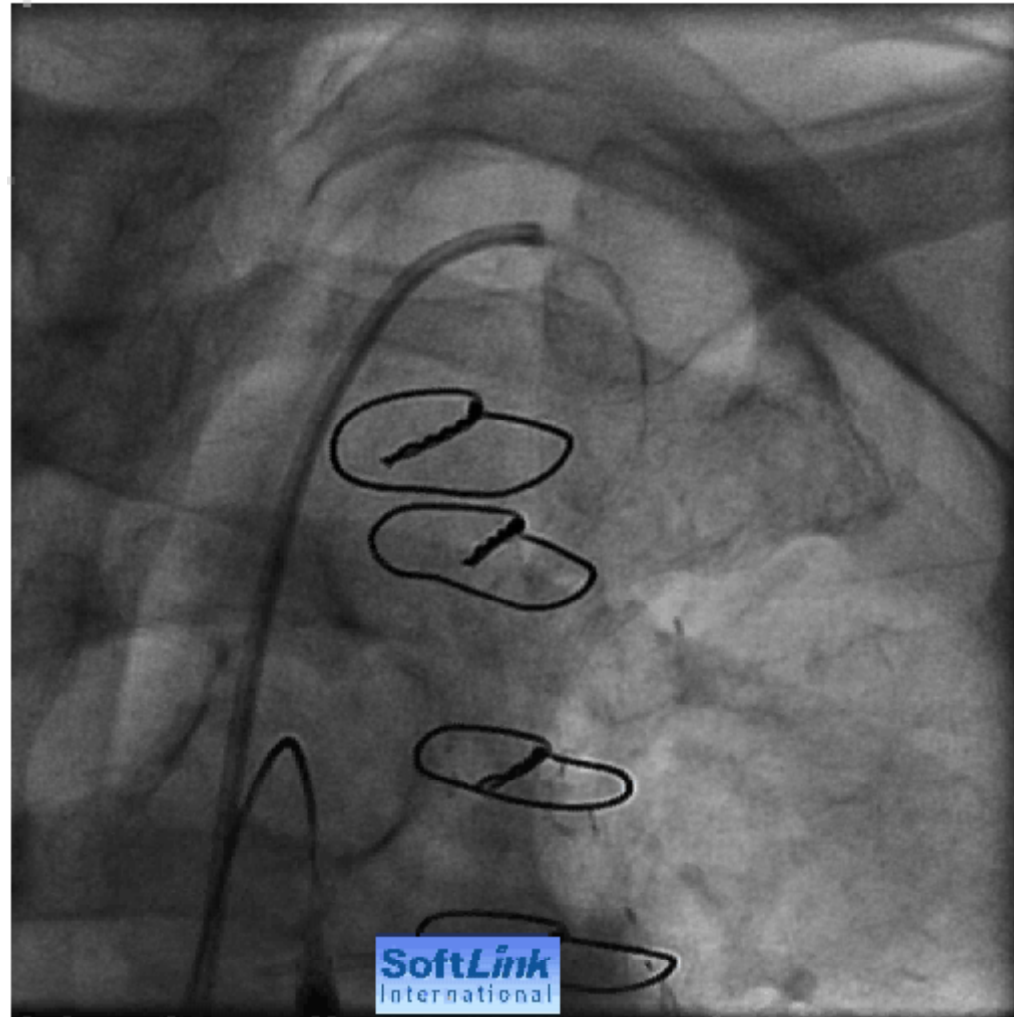


Post dilatation with Powersail 2.50 x 13mm balloon

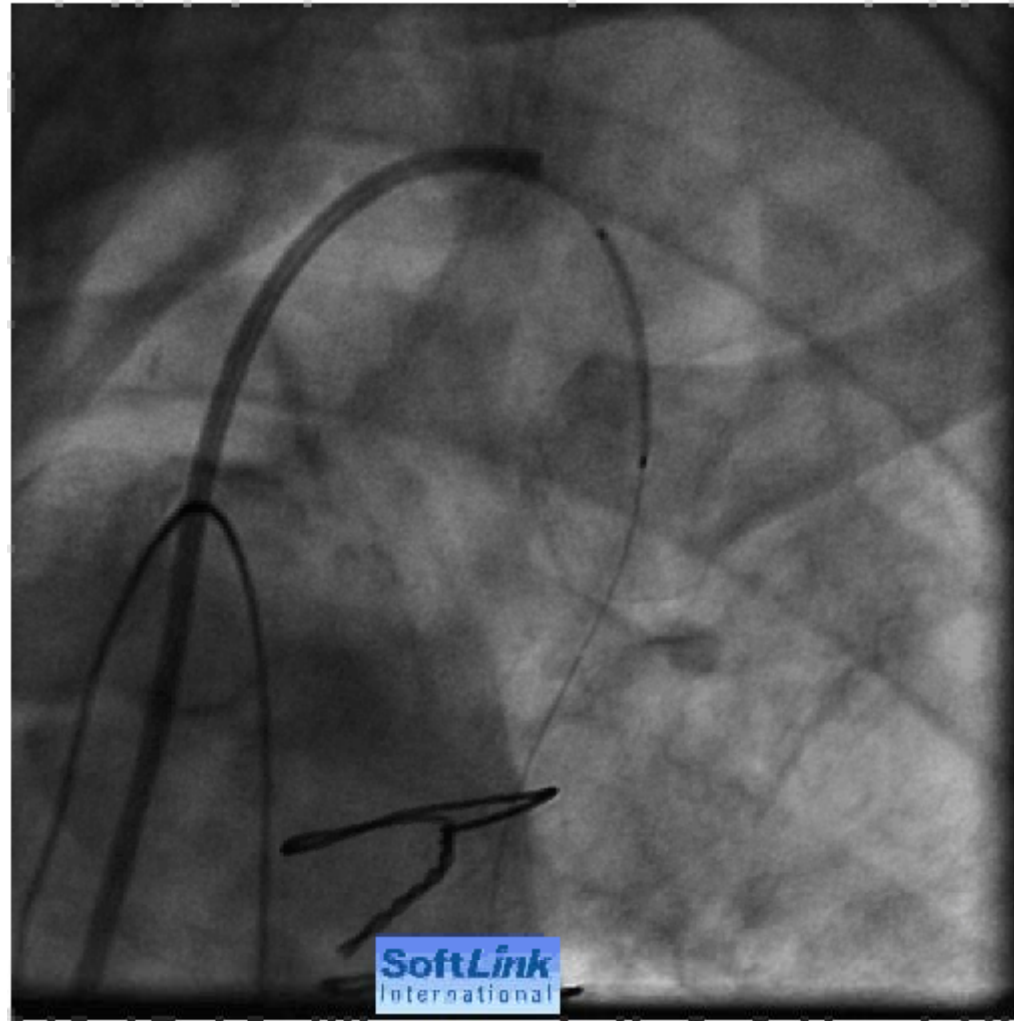
RESULT OF POSTDILATION



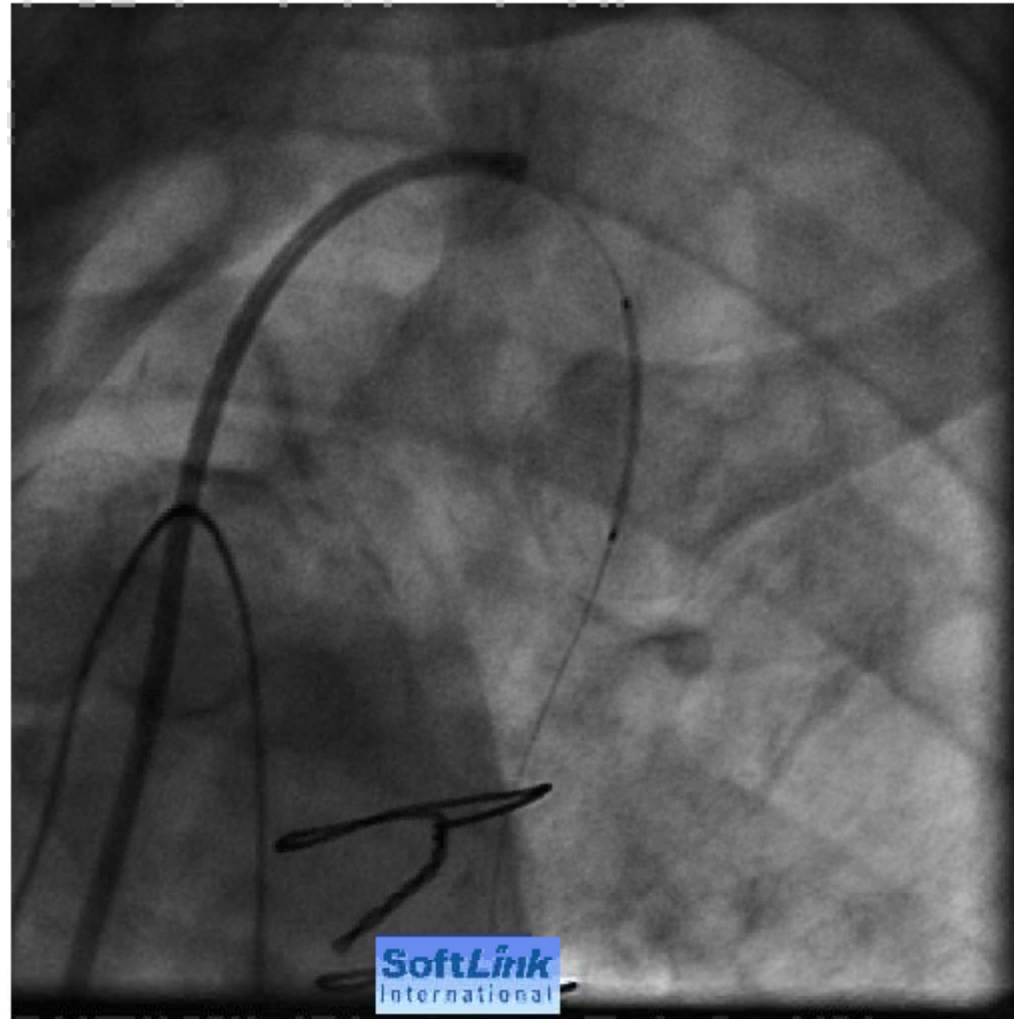
Proximal LIMA Dissection- Stented with Driver 3.5 x13



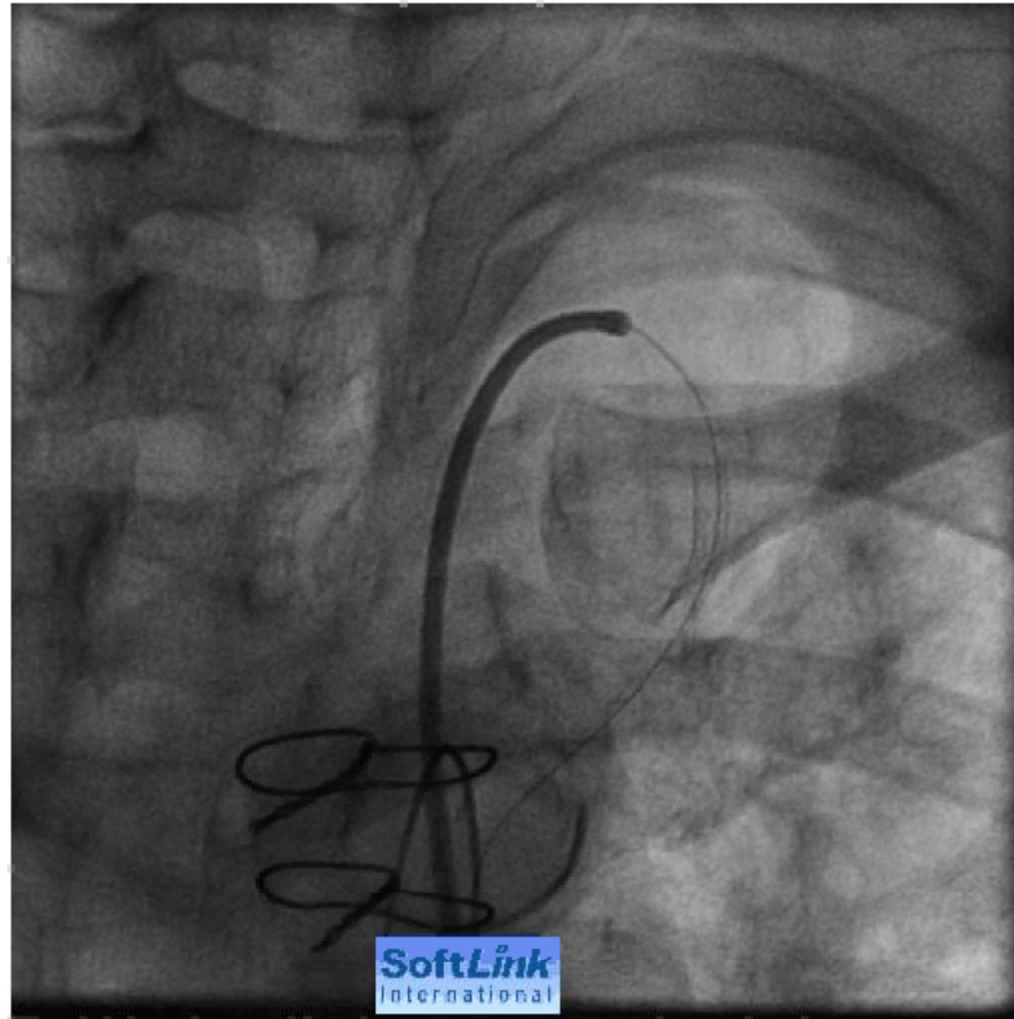
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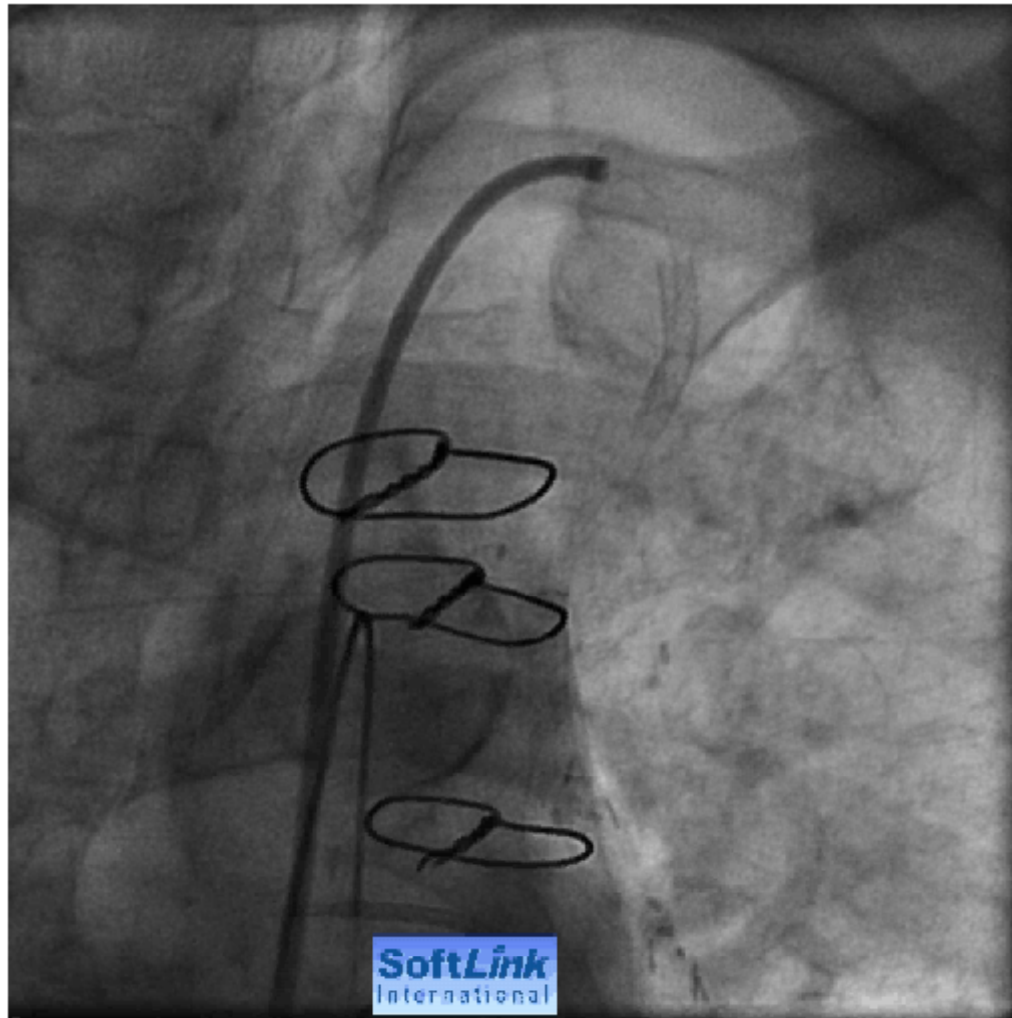
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Final LIMA Angiogram



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FOLLOW UP

- After successful angioplasty patient made gradual recovery and was shifted to ward on day 15 and discharged on day 17 in stable condition.

TAKE HOME MESSAGE

- For anticipated difficult & complex angioplasties in patients with severe LV systolic dysfunction use of LV support devices like the impella pump is extremely beneficial to tide over unforeseen complications