Stenting of Distal Abdominal Aorta CTO with novel coronary kissing stents technique

Mei Lestari, Muhammad Munawar
Fatmawati Hospital-Binawaluya Cardiac Center
Jakarta

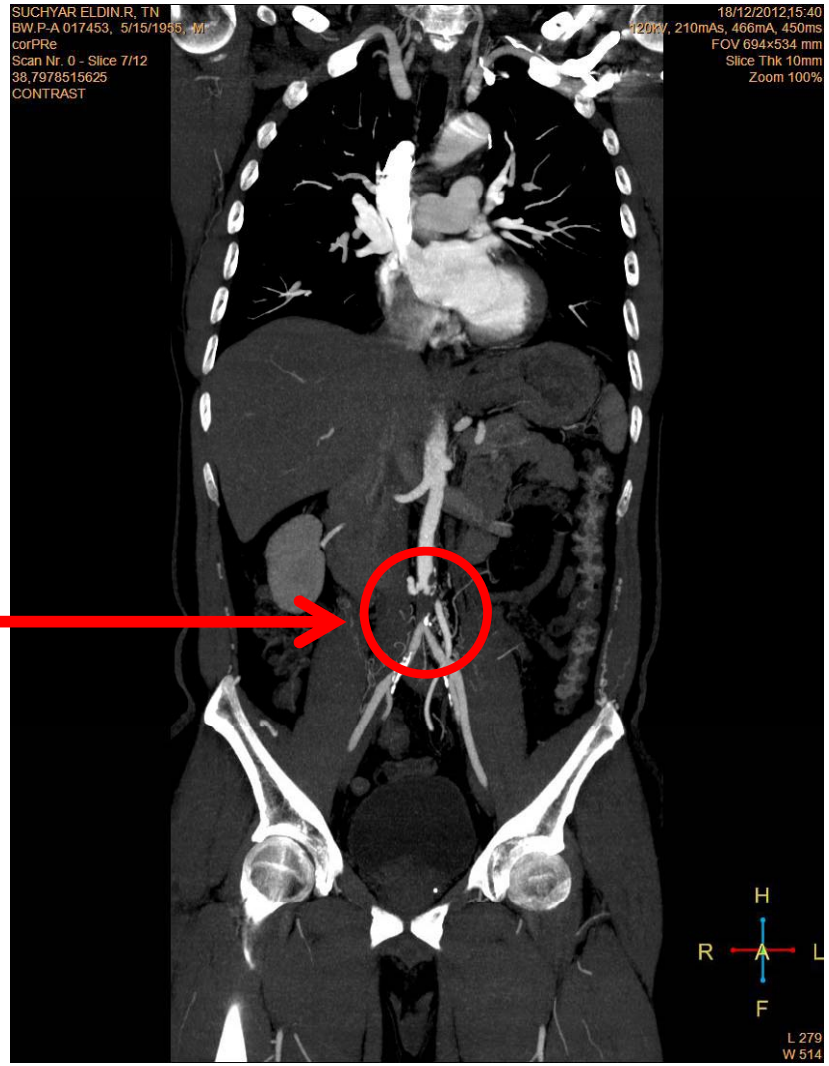
Introduction

- **Occlusion in infrarenal aorta with involvement of the iliac arteries (type D lesion) is the most frequent form of aortic stenosis**
- **While the CTO lesion of Infrarenal Aortic is rarely found**
- **The cause of aortic stenosis basically was due to atherosclerosis process**

Clinical Characteristic

- **A 57-years old gentleman, complaining of intermitten claudication**
- **Physical examination found weak pulses in both femoral arteries**
- **No history of DM and hypertension**

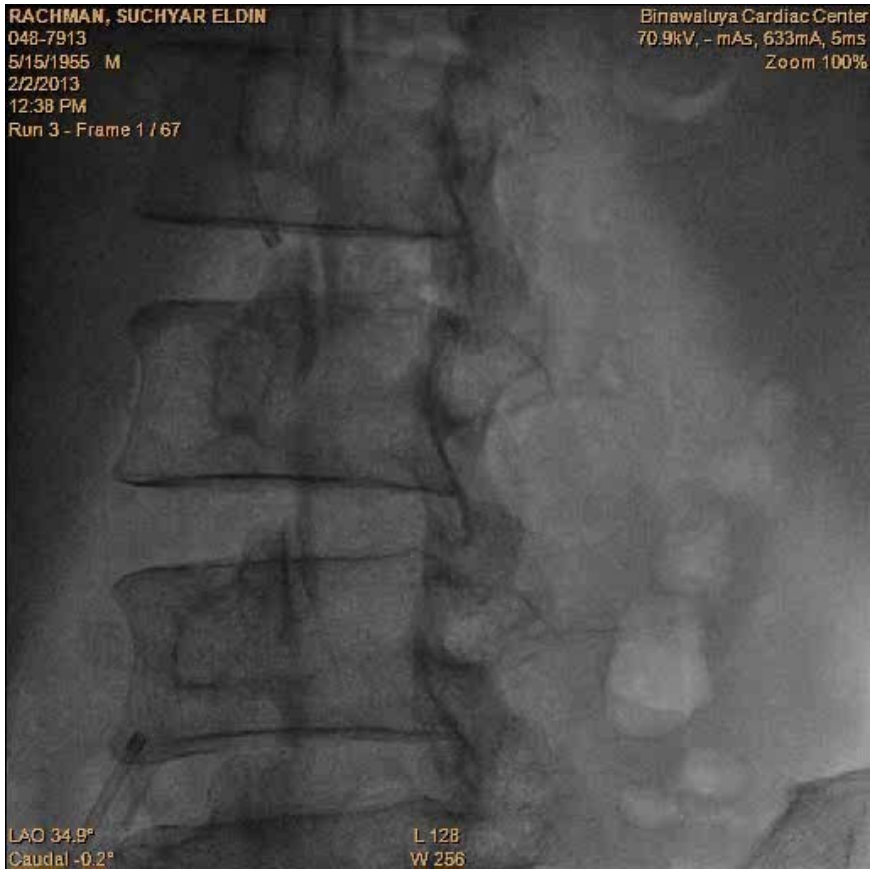
CT Abdominal Aorta



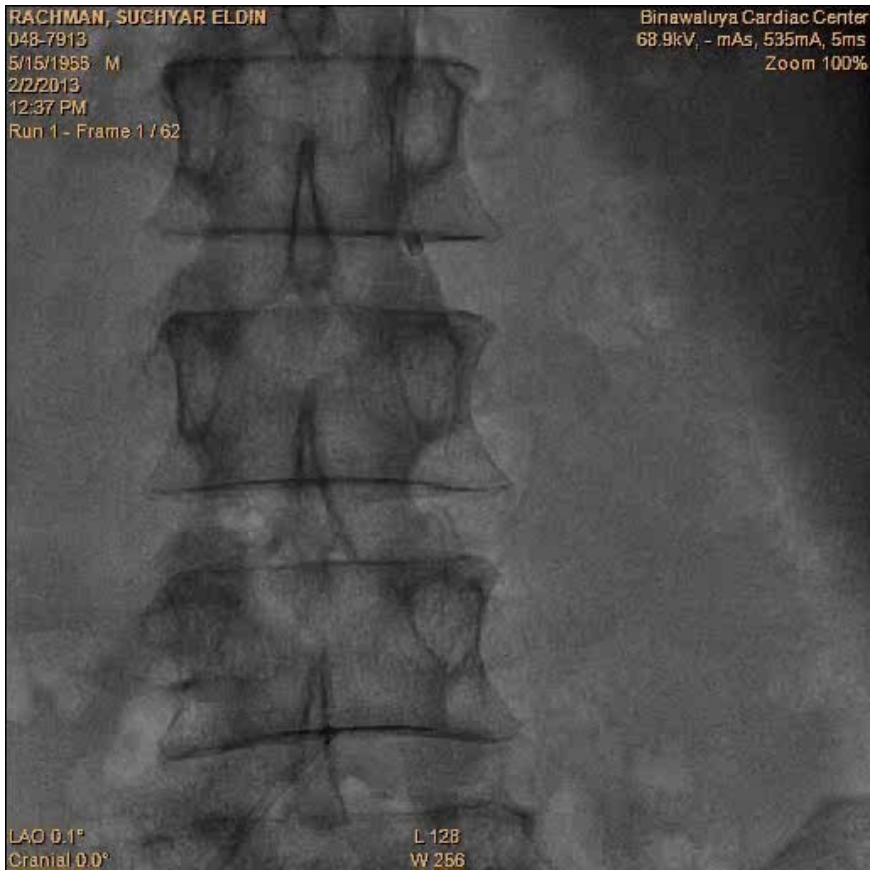
Total occlusion with length : 2.1 cm

Antegrade & Retrograde Aortography

LAO 35



AP



What Options Do We Have?

A. Surgery :

- **Direct Thromboendarterectomy (TEA) with or without patch**
- **Aorto-bifemoral bypass**

  10-year patency rates ~85 %

  30-day mortality 2–3 %

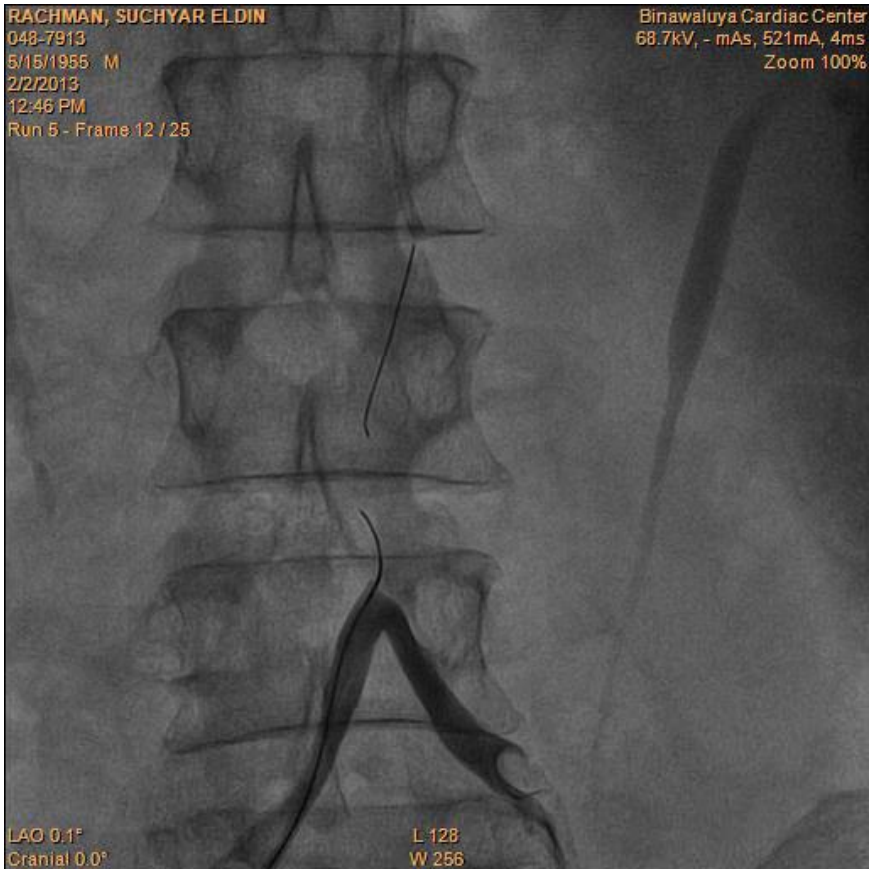
B. Endovascular : Stenting

Patient refused for surgery and opted for endovascular procedure

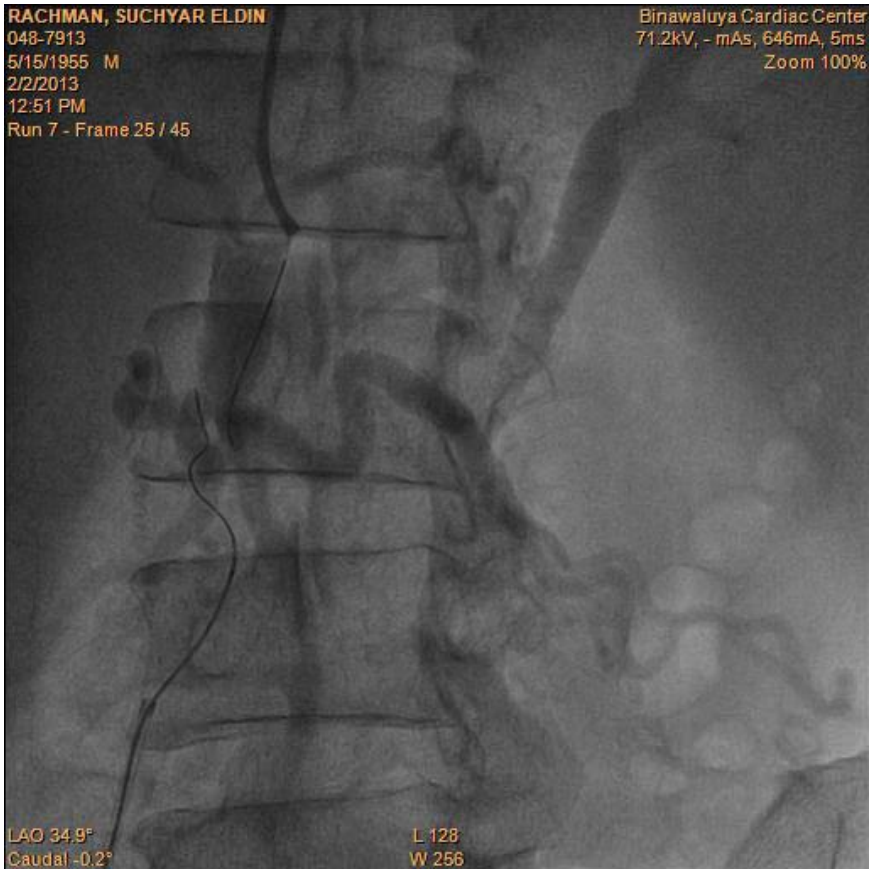
Miracle 6 GW supported by Corsair MC from distal point

(Those GWs were not in the same lumen and the antegrade wire was regarded as a marker)

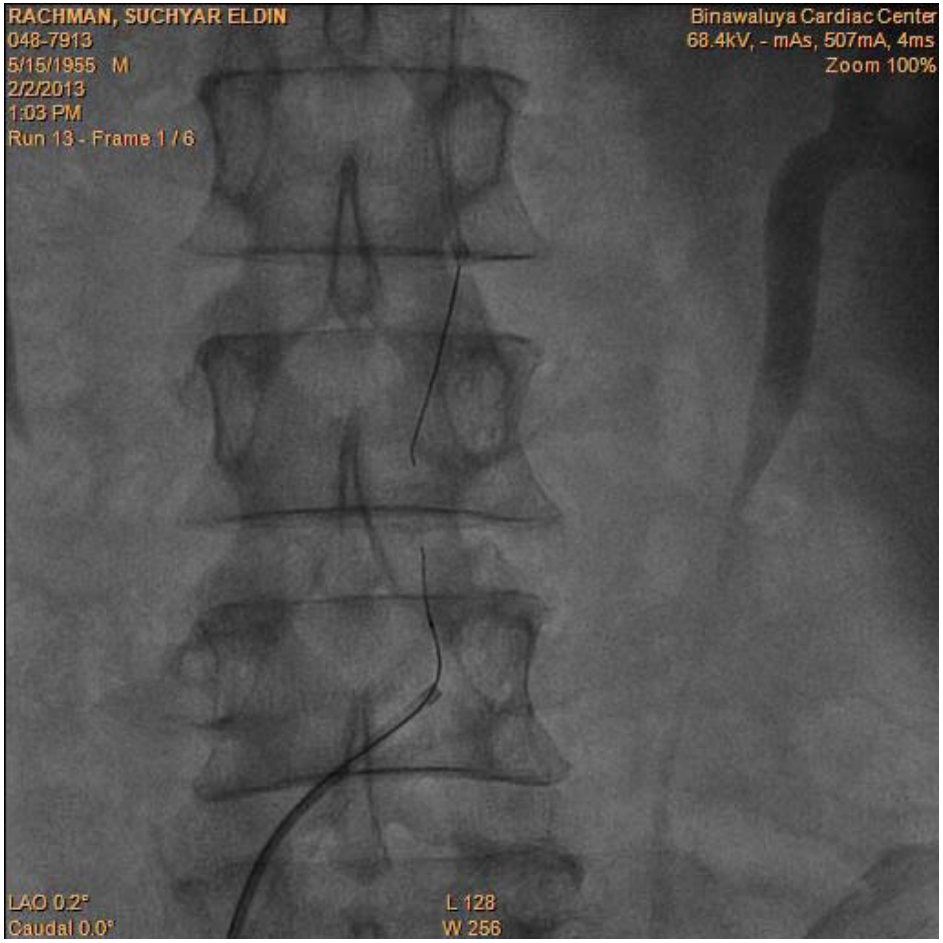
AP

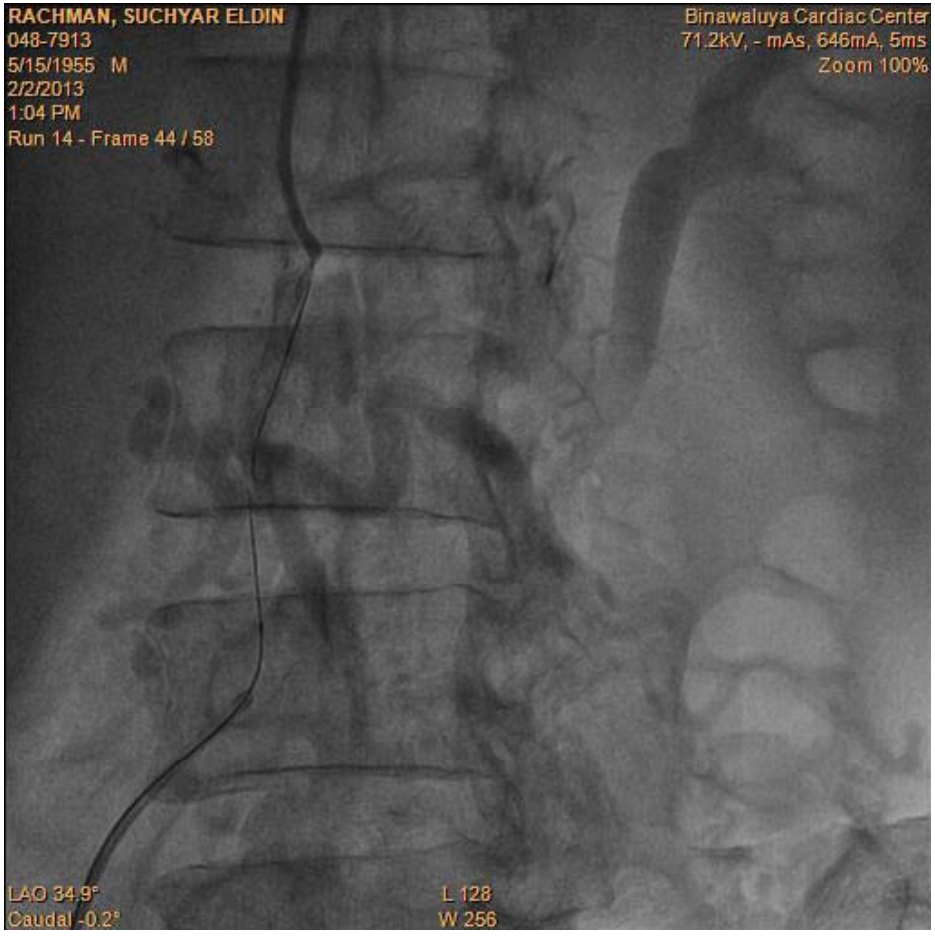


LAO 35



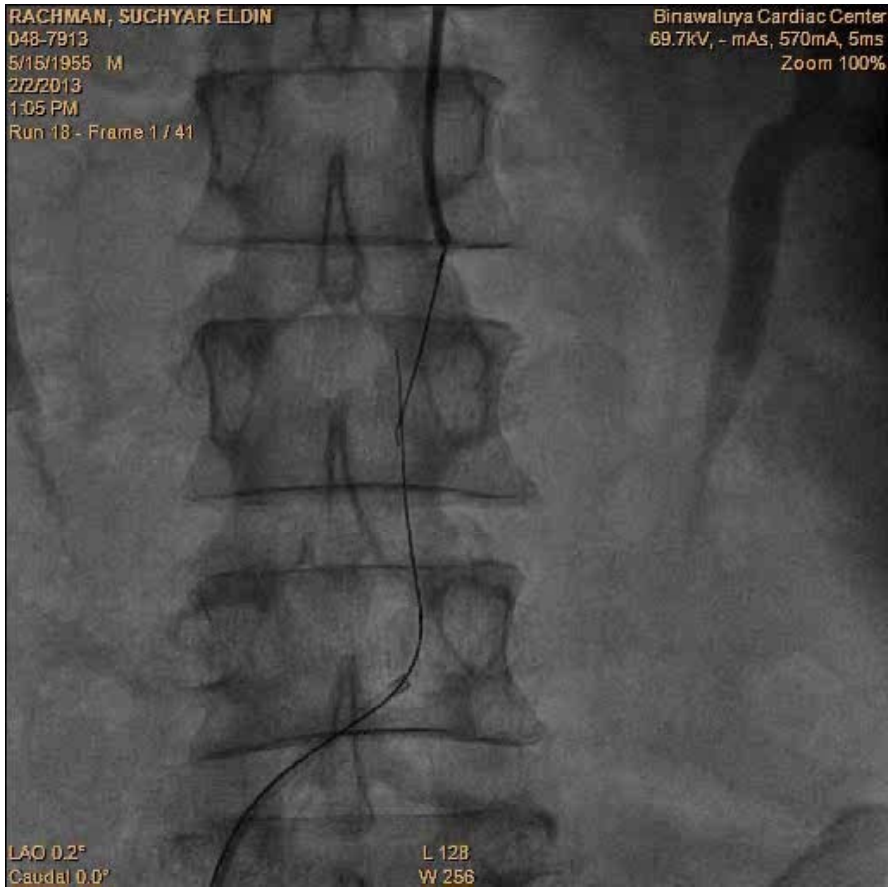
Changing Miracle 6 GW to Conquest Pro 20 GW- supported by Finecross MC



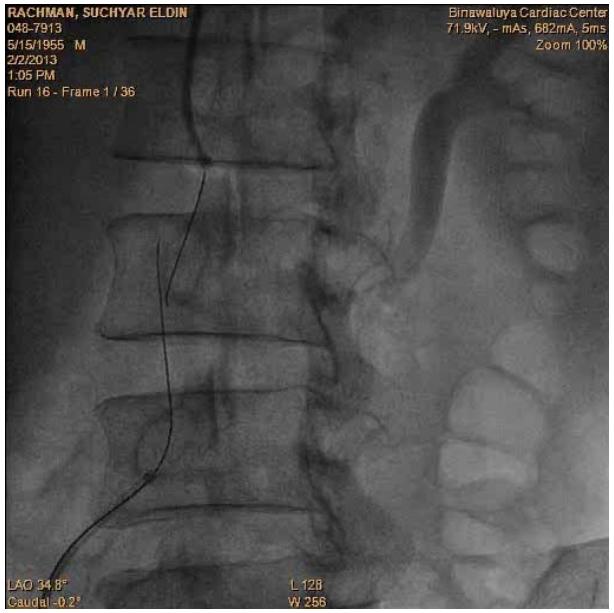


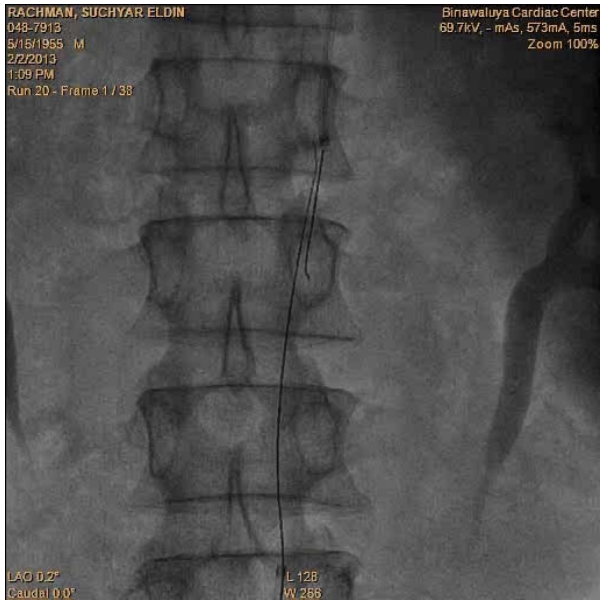
Multiple Views Confirmed that both wires were in the same lumen

Conquest 20 GW finally crossed the CTO – AP View



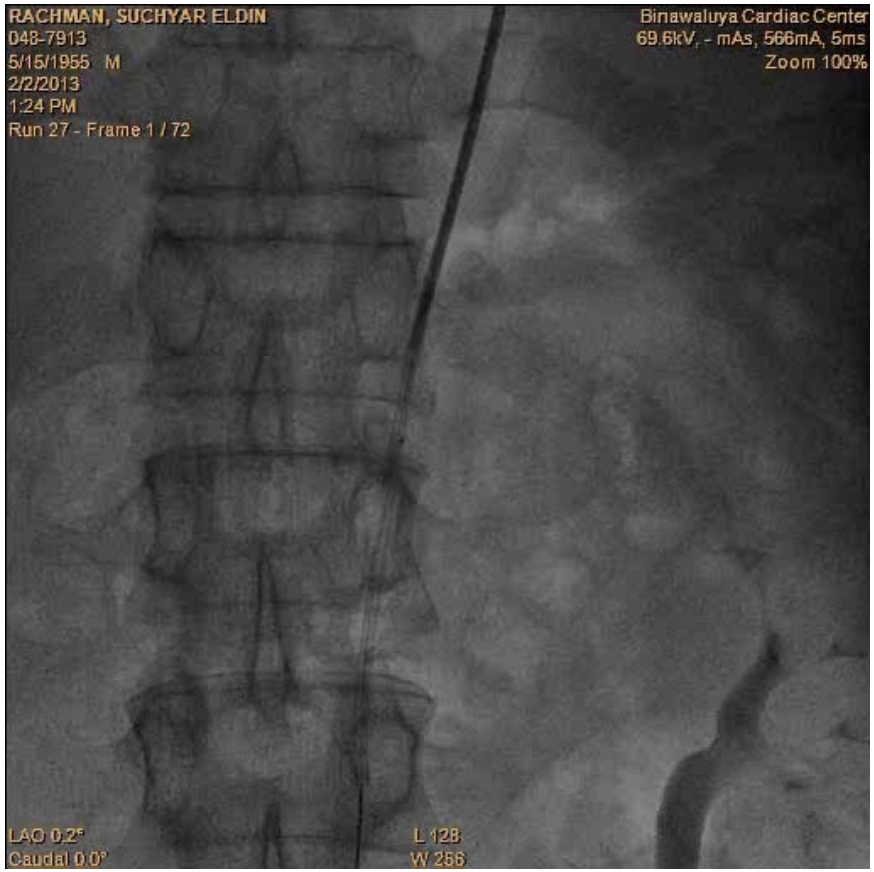
LAO 35 & RAO 30



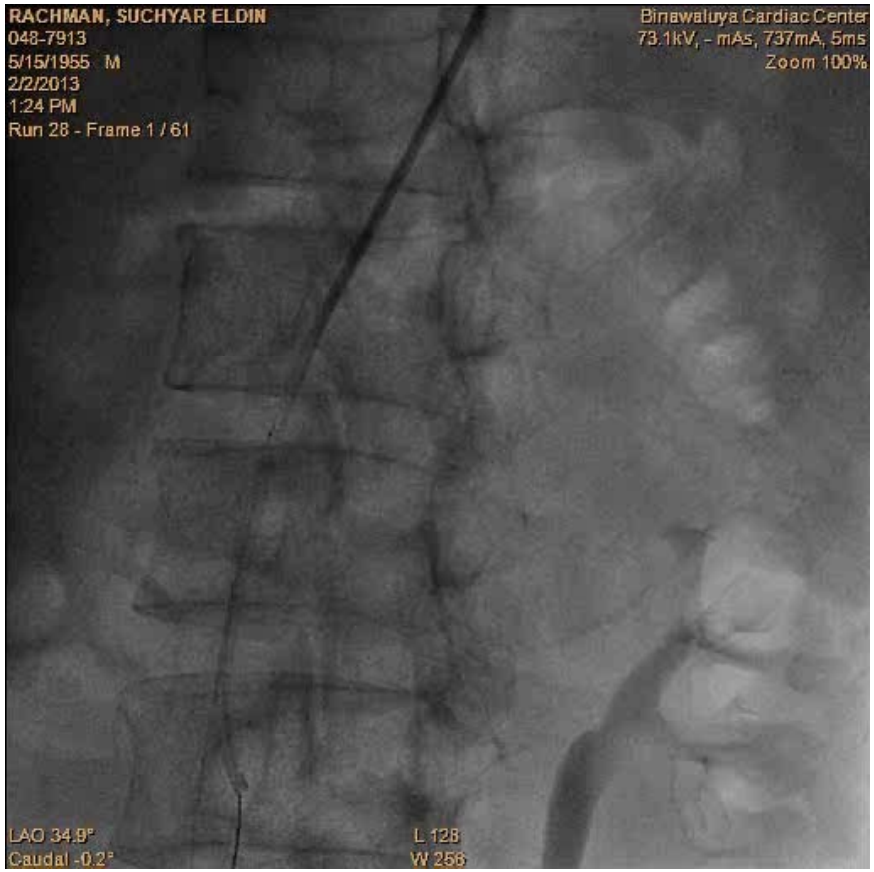


Injected contrast from retrograde microcatheter filled the lumen of the Aorta

AP View

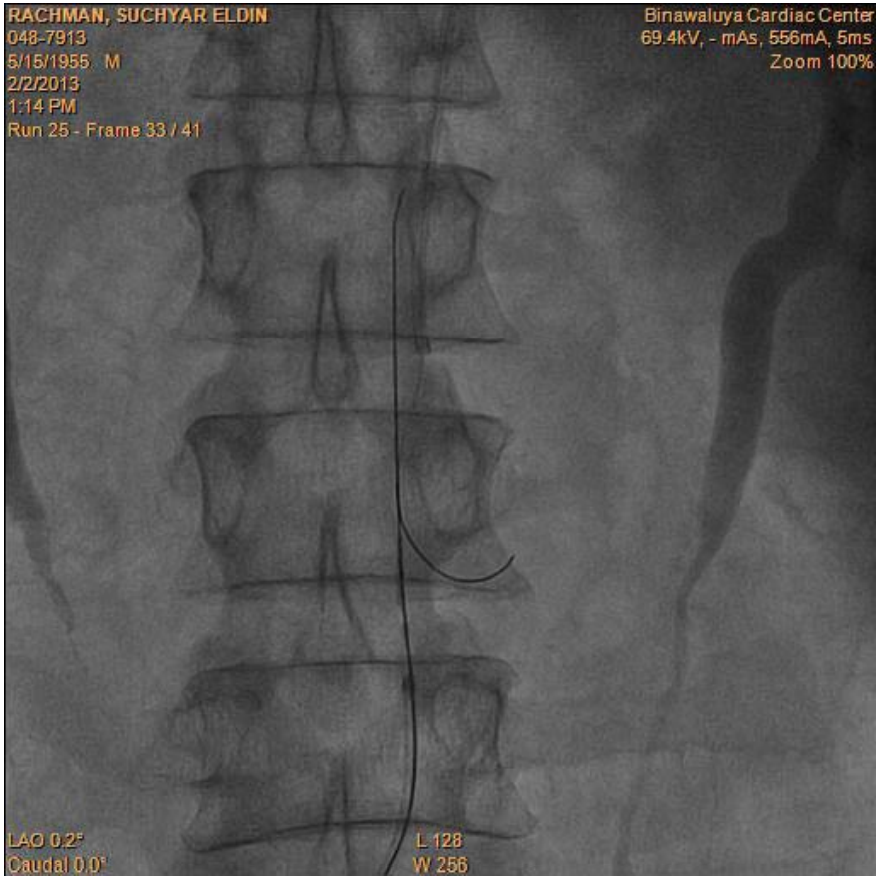


LAO 35

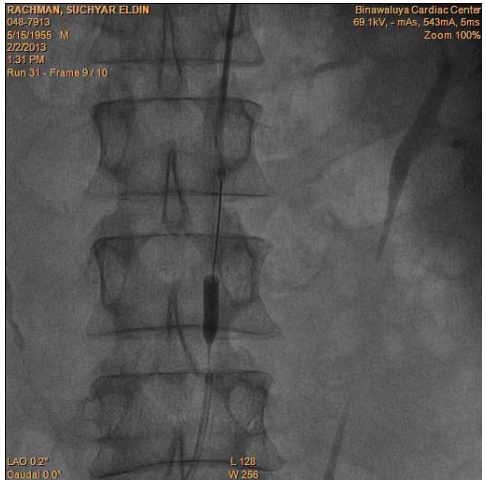


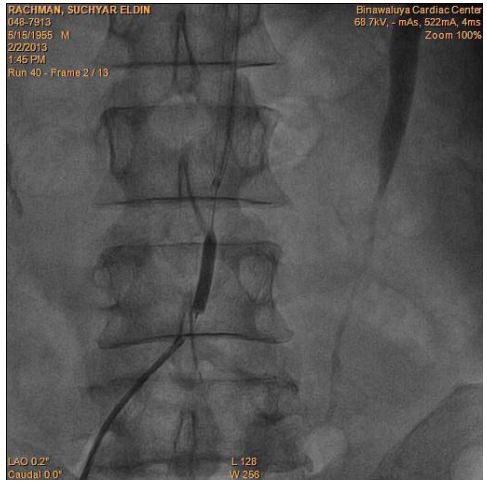
Predilatation

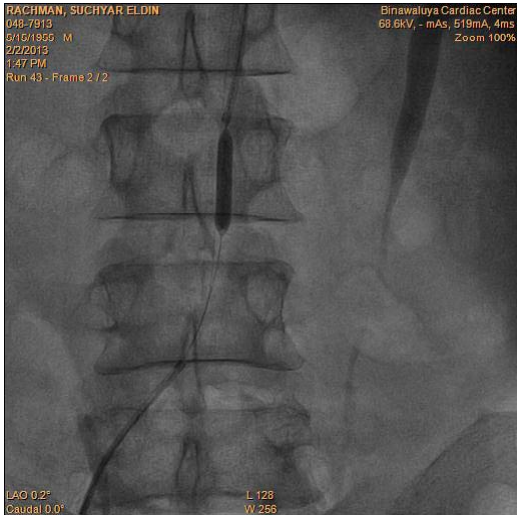
Predilatation with Mini Trek balloon1.5/20mm to make Finecross easy to cross CTO



Exchange Conquest Pro gw with Extra Support Wire. Predilatation with NC Trek ballon 4.0/15mm

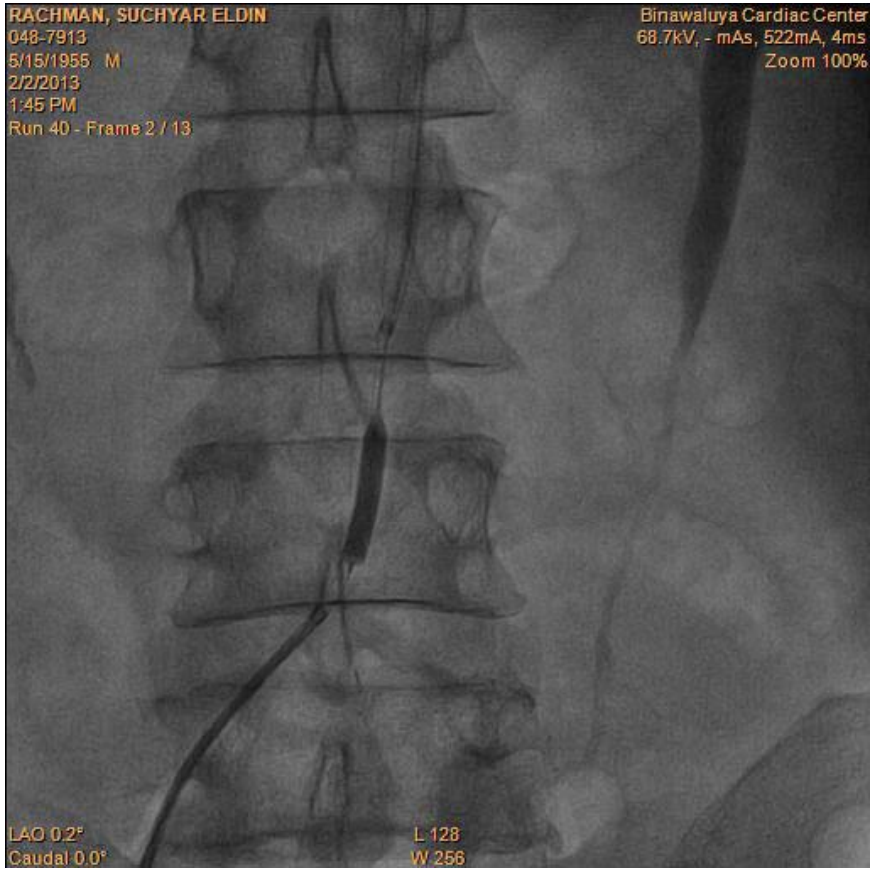


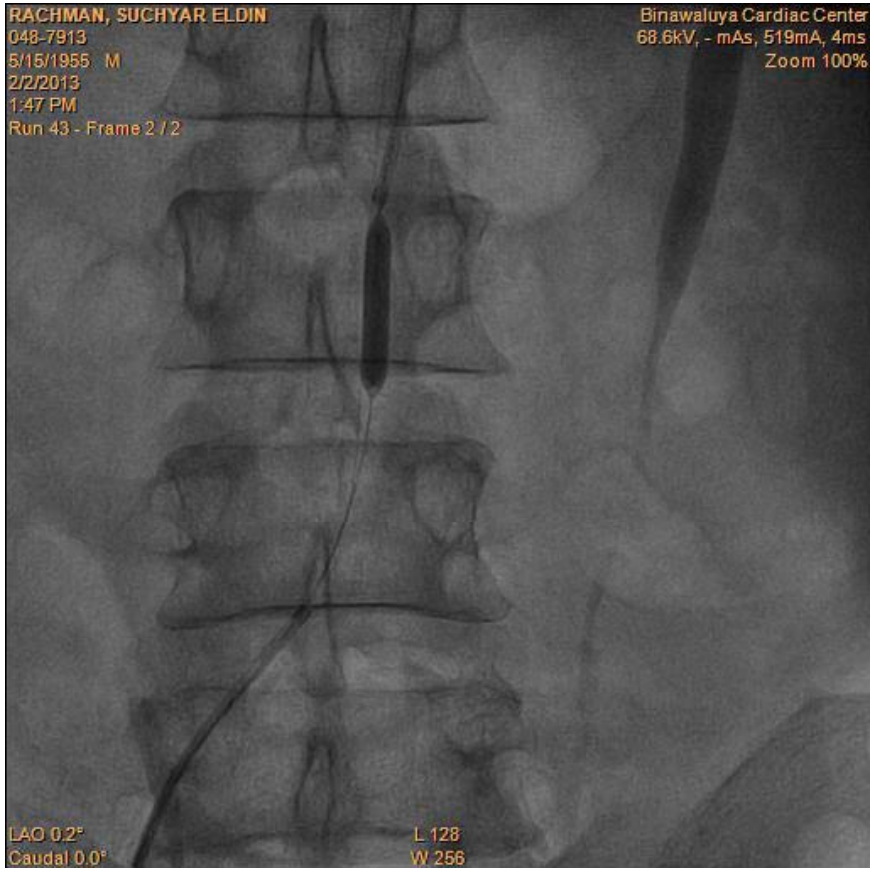




Predilatation with Voyager RX ballon 4.0/20mm

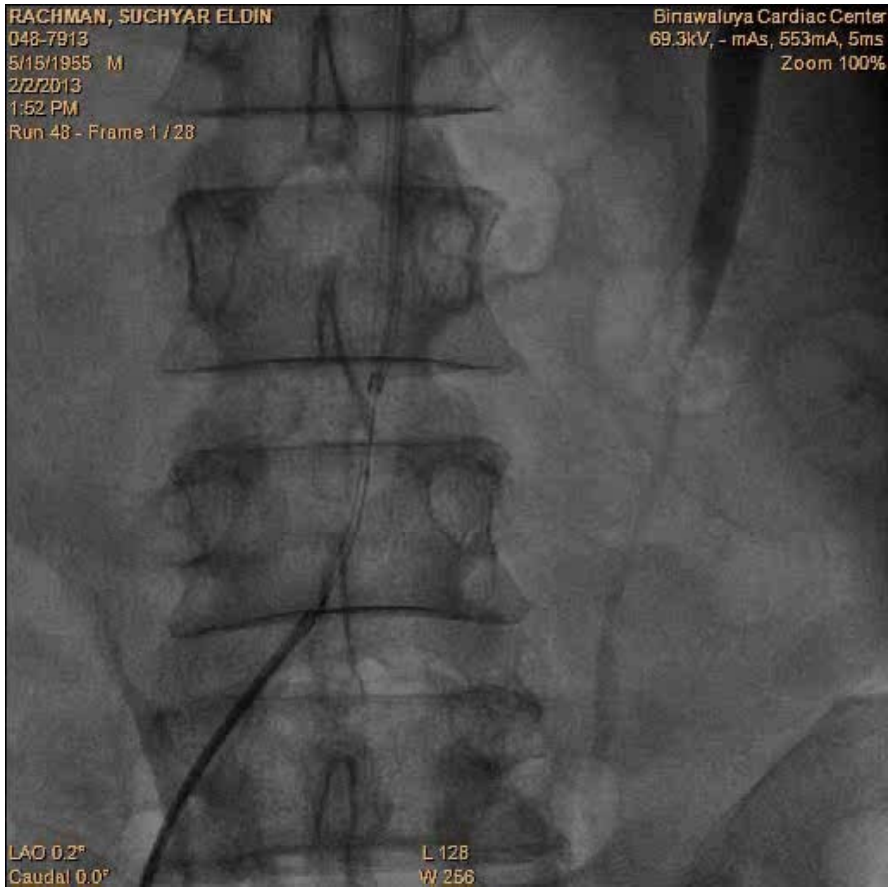
Distal to Proximal



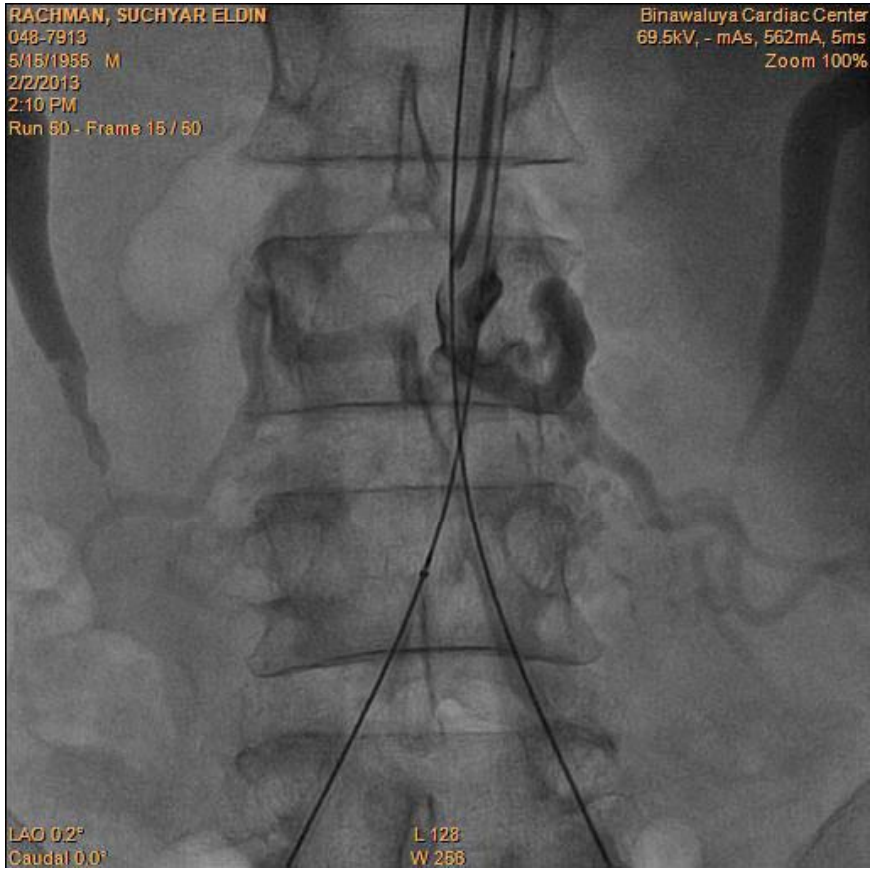


Post Dilatation Angiography

As contrast injected near the hole of crossed CTO, contrast flow below



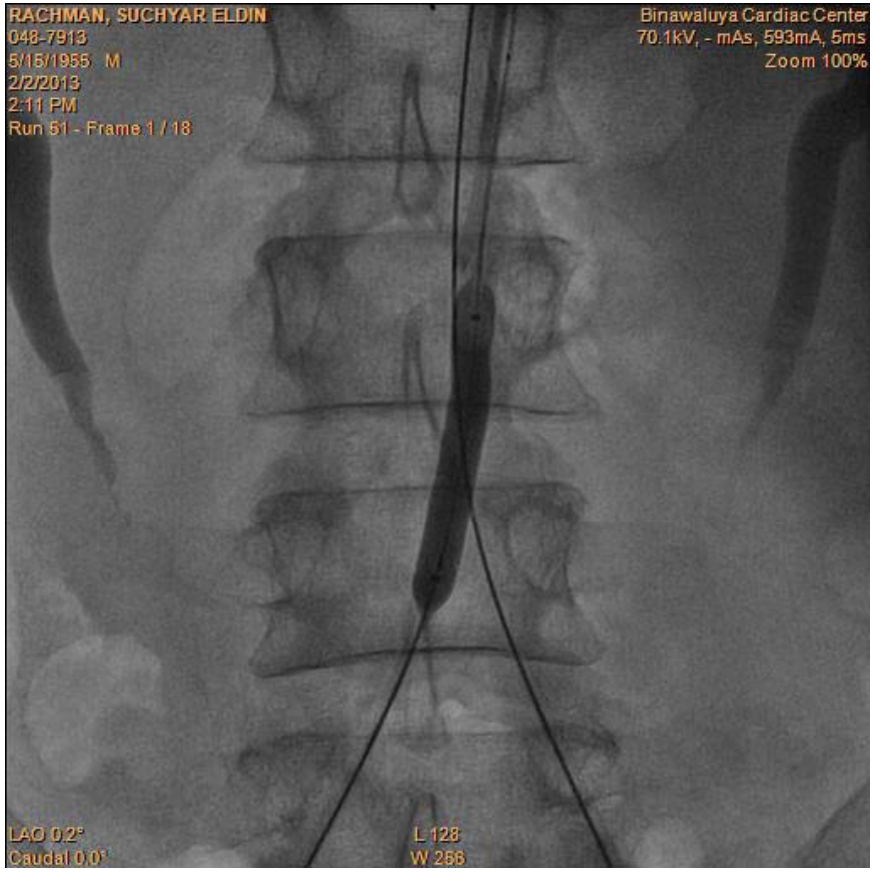
Change the wire with extra support wire (Right & Left access)



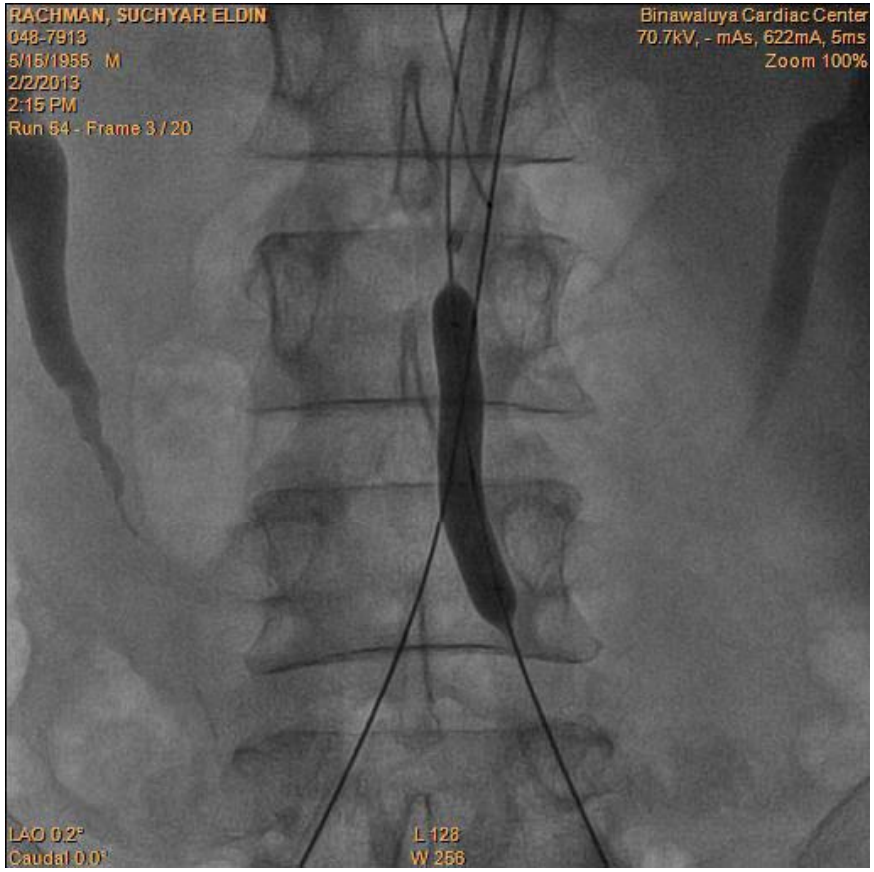
Predilatation with Foxcross 7.0/40mm Balloon

(Using long sheath 6F/25 cm)

From Left Femoral Access



From Right Femoral Access



Stent Choices

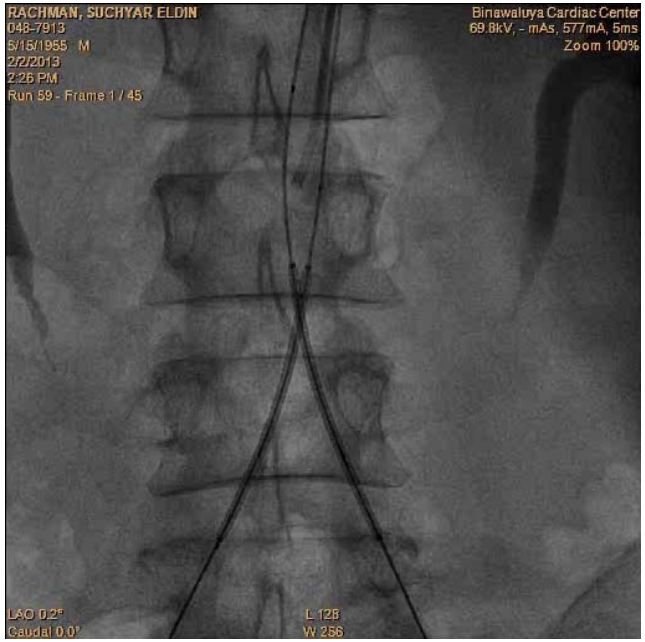
Self Expandable Stent ?

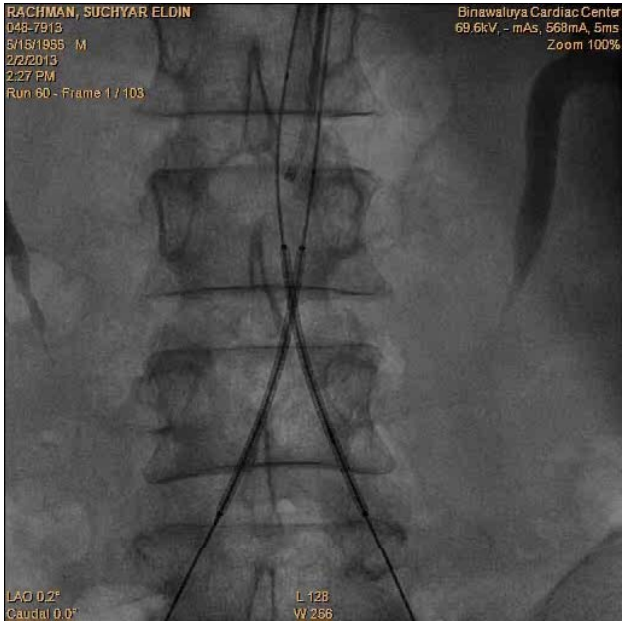
or

Balloon Expandable Stent ?

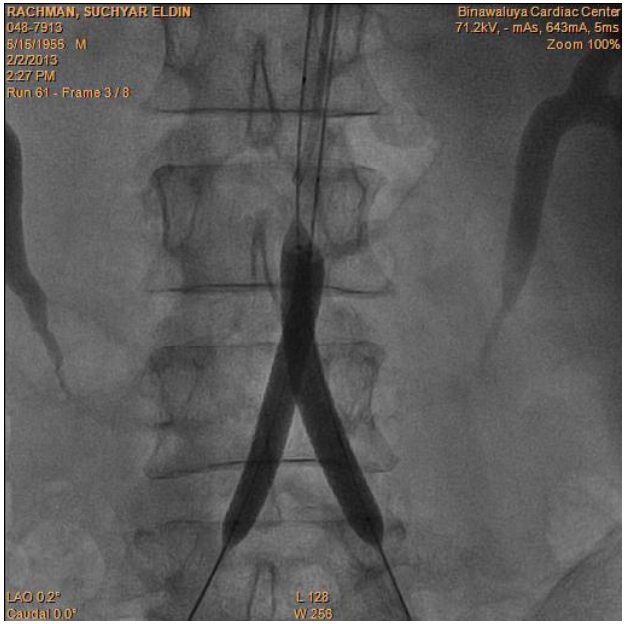
Kissing Stents Technique with Dual Omni-link Elite 8.0/59 mm

Stents Positioning



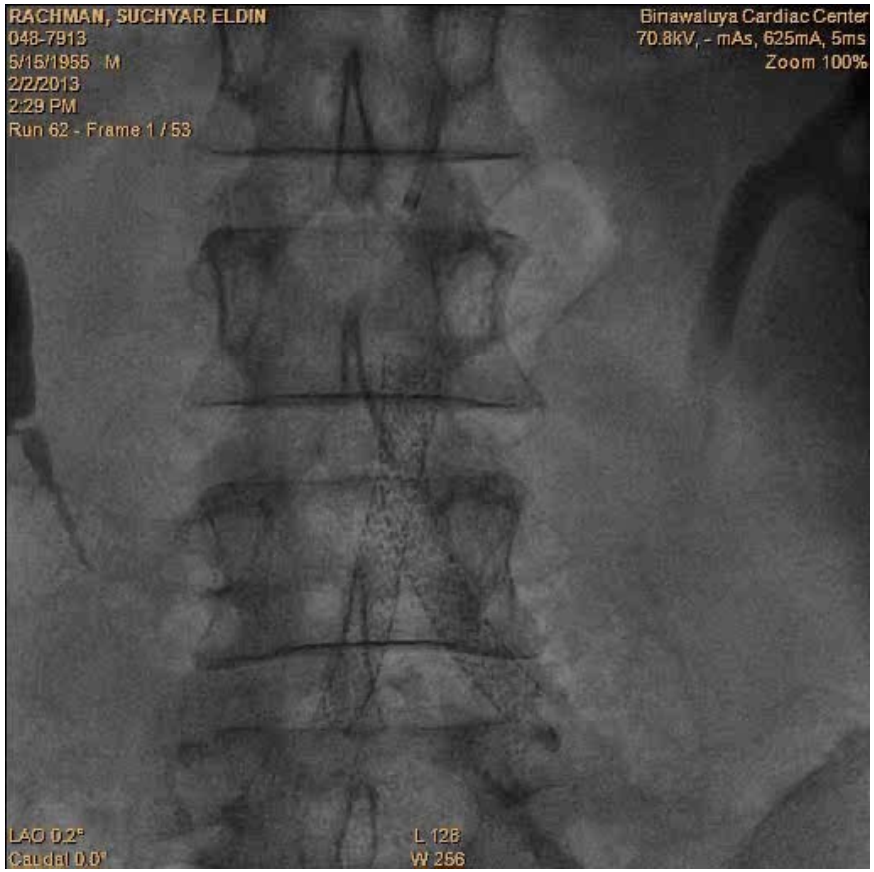


Final Kissing Stents

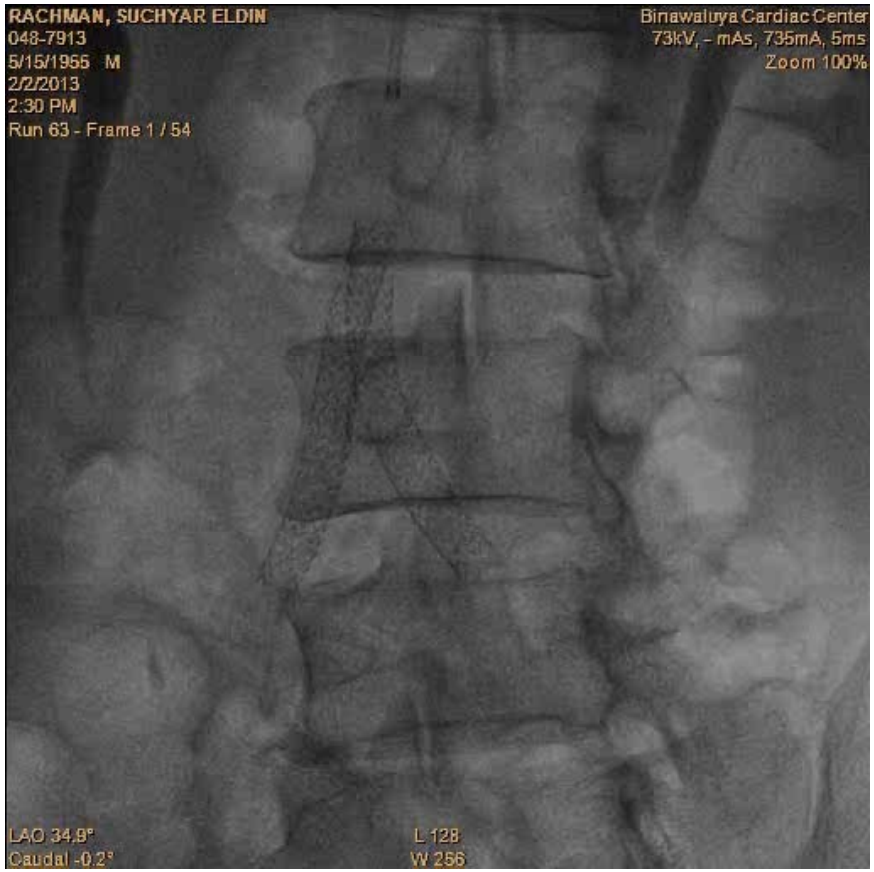


Post Procedure Angiography

AP View



LAO 35



Follow Up

- **The pulsation of femoral artery to both dorsalis pedis arteries were excellent**
- **Medication :**

- **Aspirin 1 x 100 mg**
- **Clopidogrel 1 x 75 mg**
- **Lipitor 1 x 40mg**

Take Home Message

- **Total occlusion of infrarenal aorta could be managed successfully with endovascular treatment**
- **Endovascular treatment for aortic total occlusion is safe and durable**
- **The key point of the procedure is to make sure that both wires (antegrade & retrograde) are in the true lumen**
- **Final kissing stents is a suitable technique for infra renal aorta stenosis with involvement of illiac arteries.**