

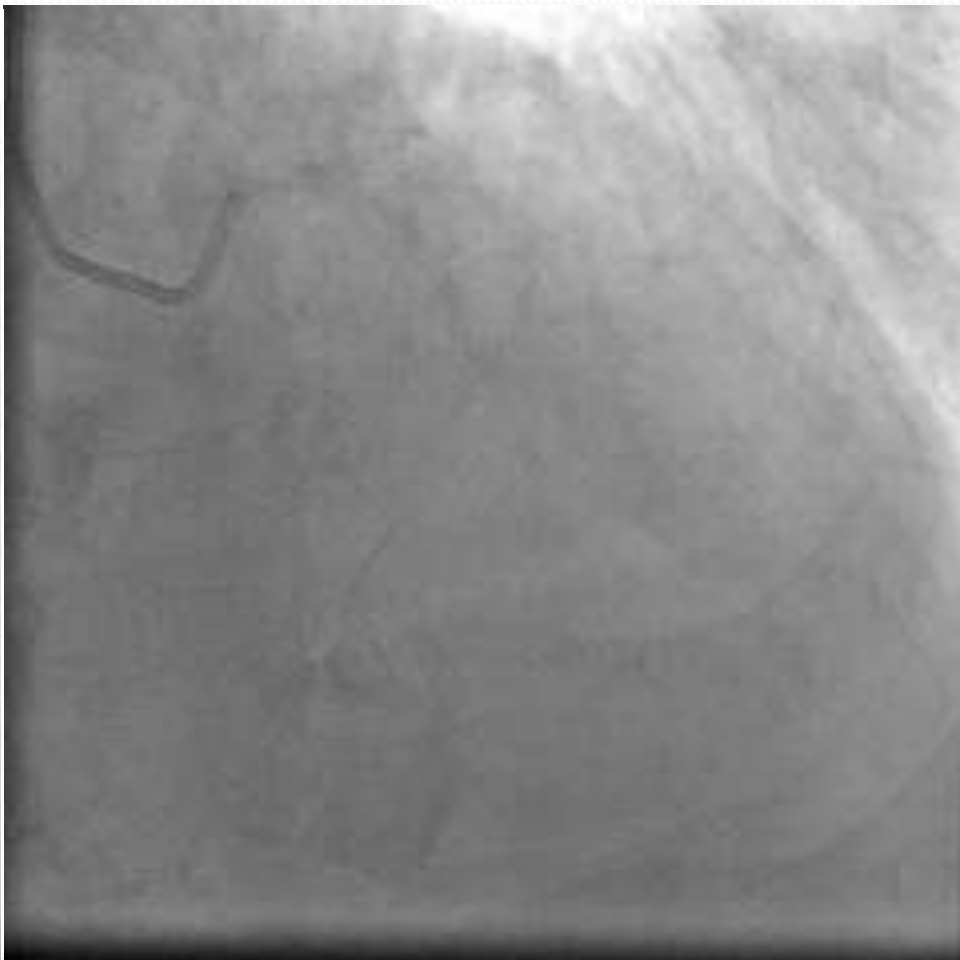
Calcified Lesion with high Syntax score: PCI through Modified DK Crush- A Great Treatment Option

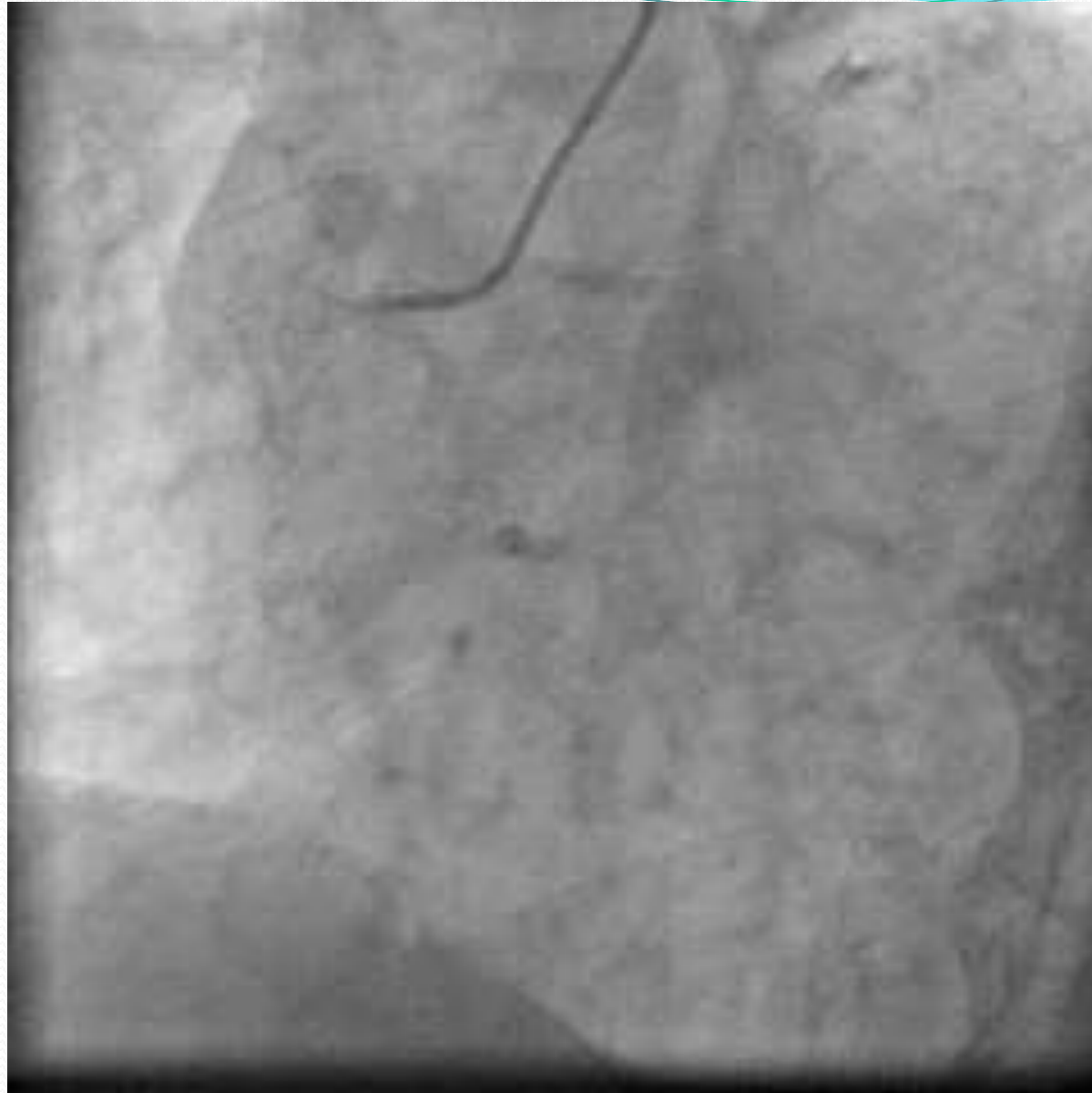
Dr. Siddhartha Bandyopadhyay,
M. D., D. M. (Cardiology),
Consultant Cardiologist,
Fortis Hospital, Kolkata, India

Baseline Characteristics & Angiography

- Mr. P. C. 78 yr old male
- Angina on exertion for last few years
- CCS III & nocturnal angina for last 1 month
- Severe COPD
- Diabetic
- Hypertensive

Angiography





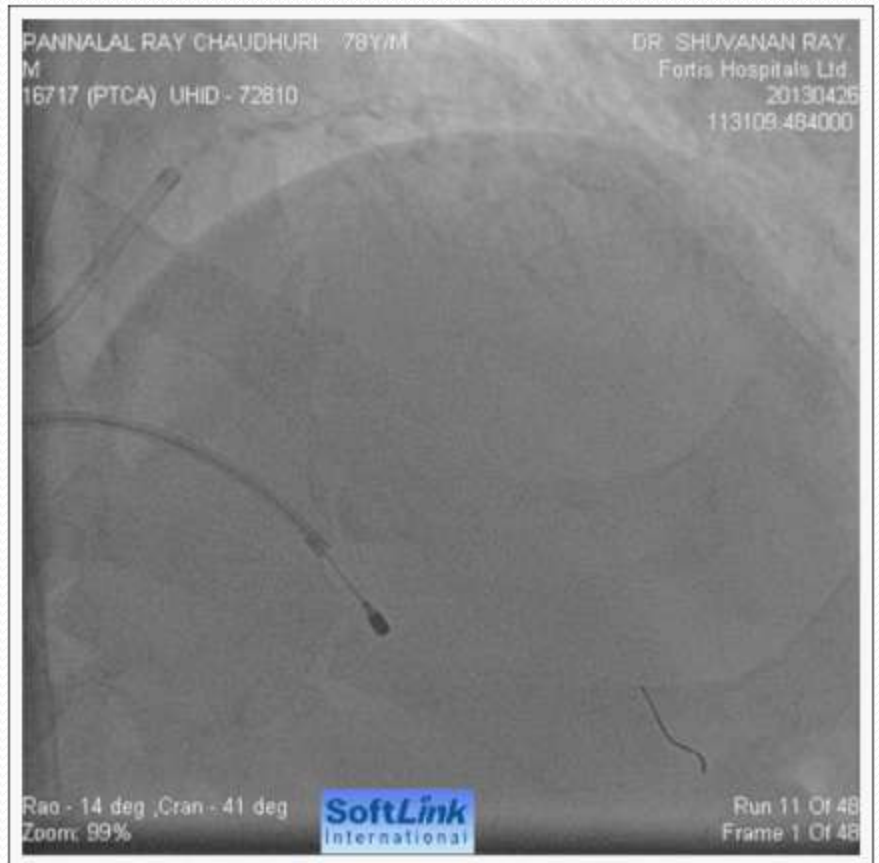
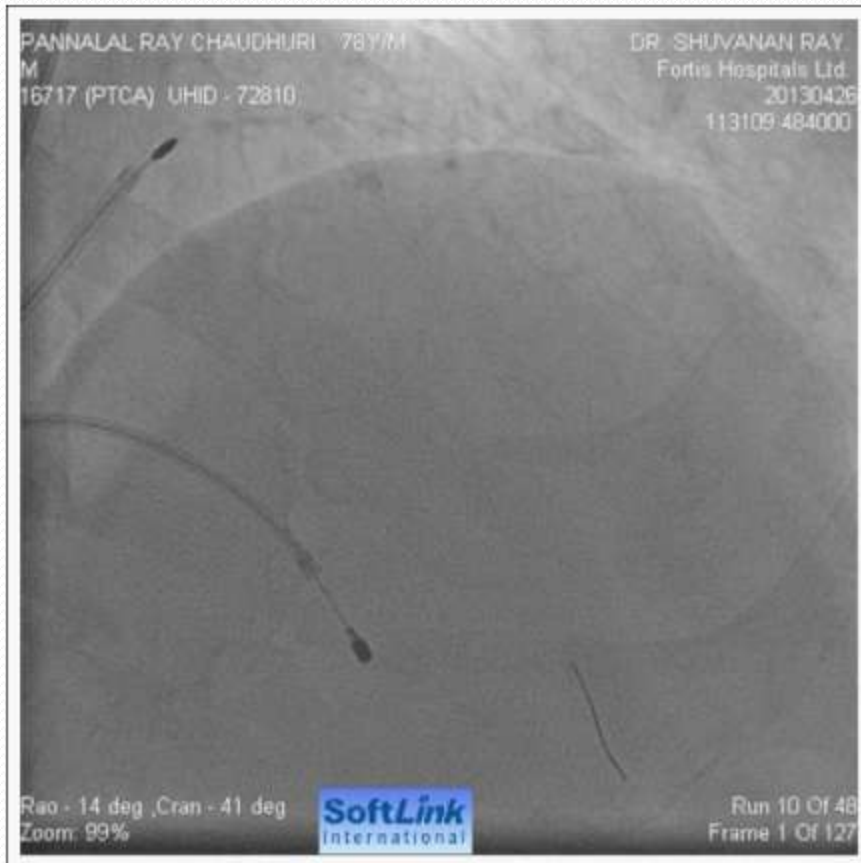
HEART TEAM APPROACH

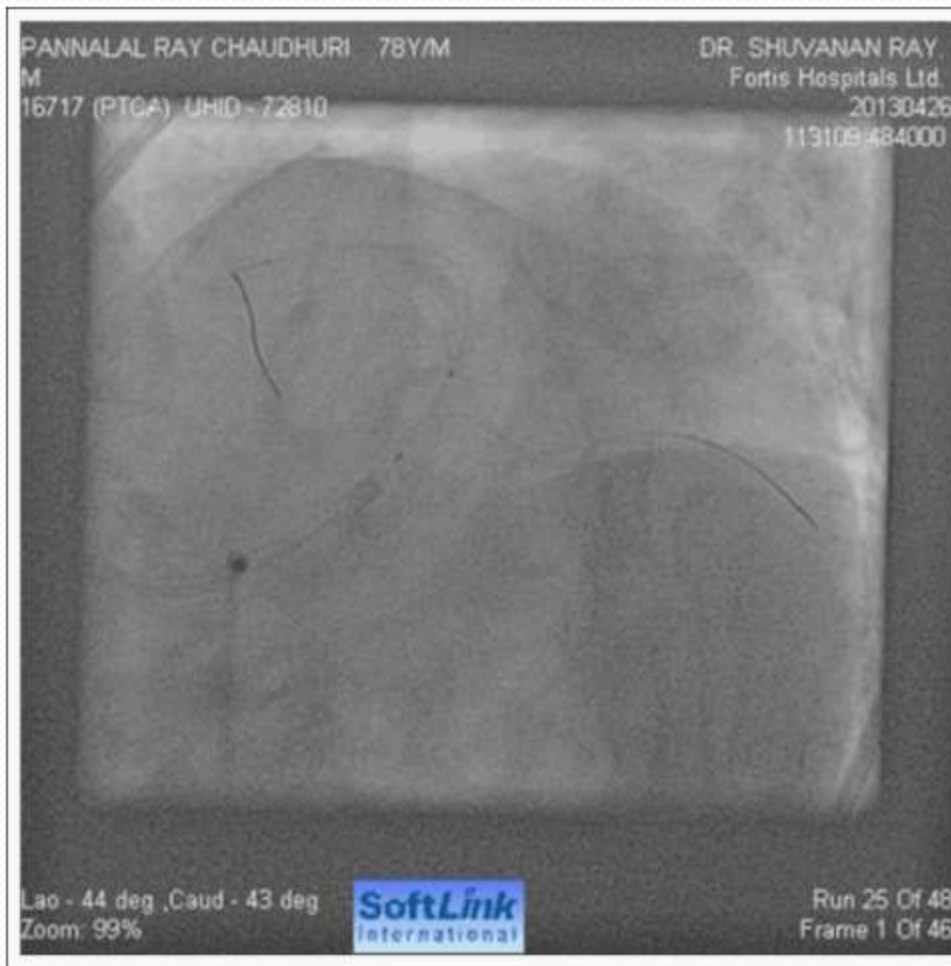
- High risk for surgery
- Syntax score 42
- Offered PCI

PCI- Planned

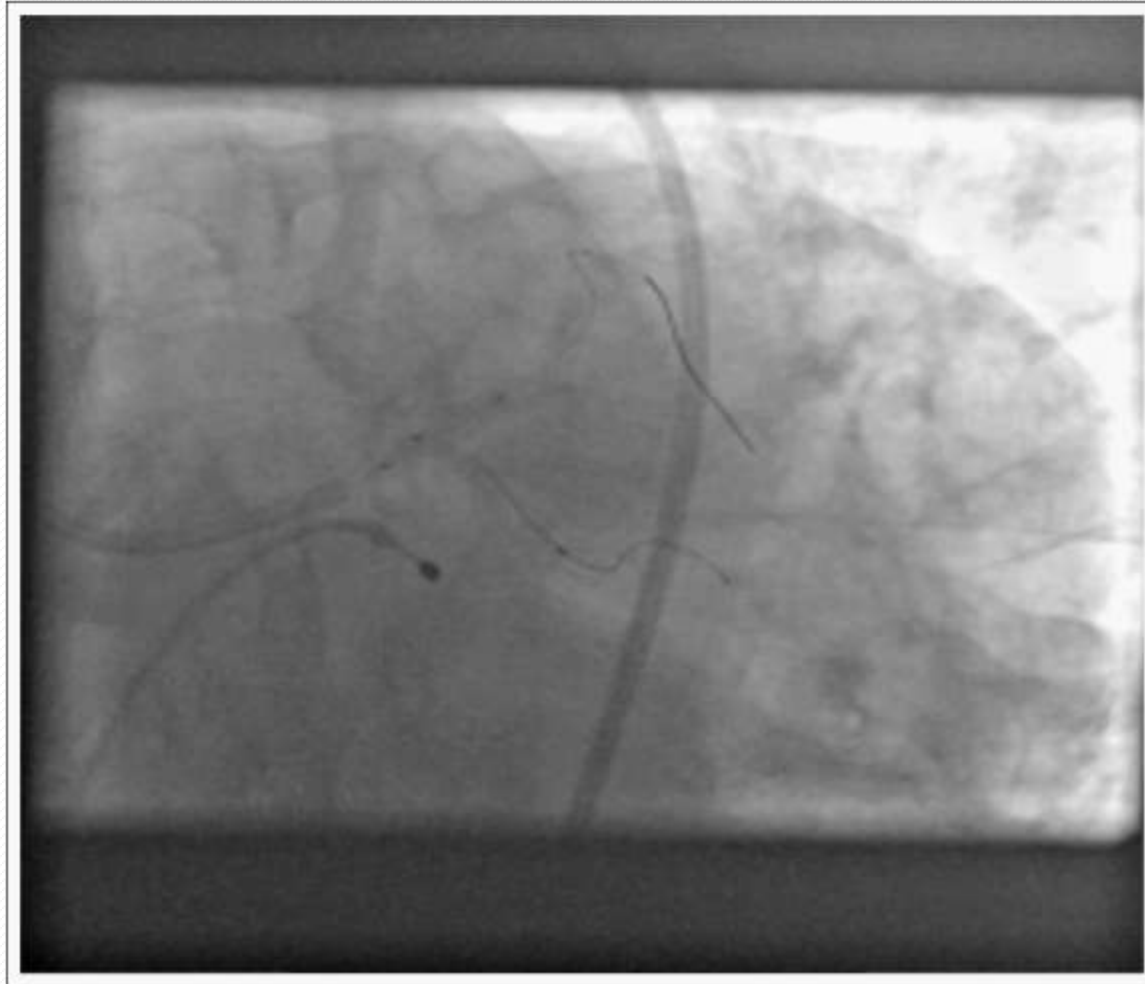
- Rt. Femoral approach
- Rotablation to LMCA to LAD
- Opening of LCx- adequate
- Stent LMCA > LAD & LCx by DK Crush technique
- IVUS interrogation of the stents

Rotablation



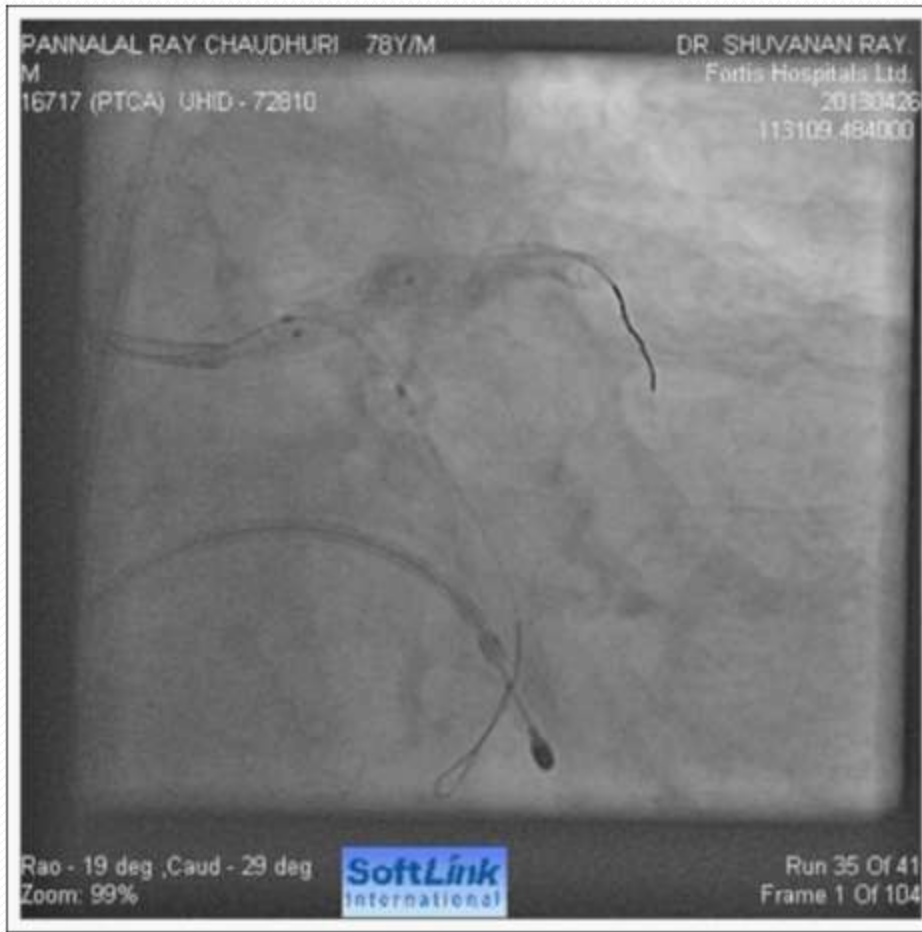


FIRST KISSING



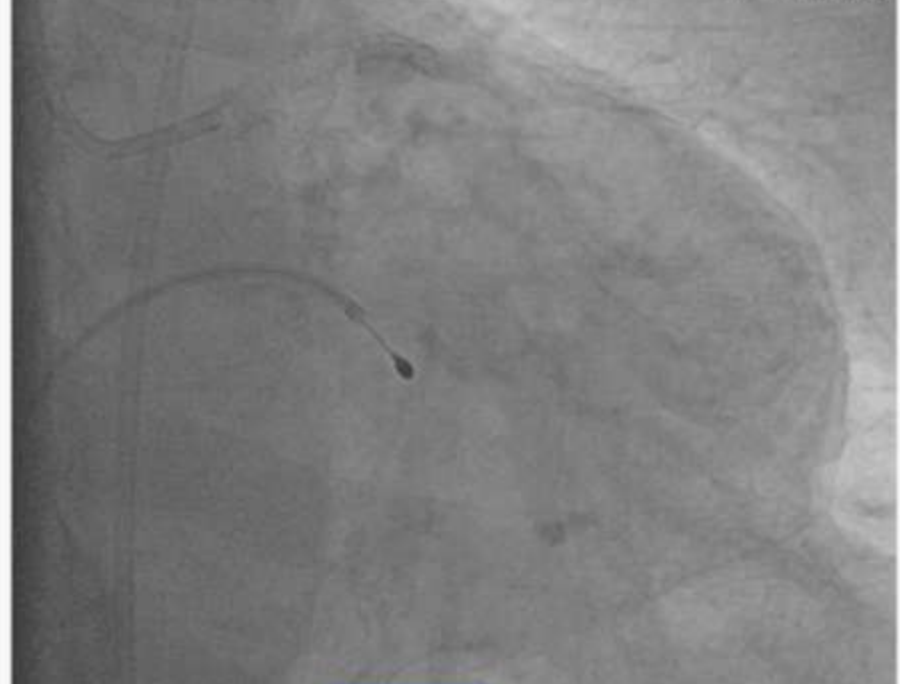
LAD STENT DEPLOYMENT

FINAL (2nd) KISSING



PANNALAL RAY CHAUDHURI 78Y/M
M
16717 (PTCA) UHID - 72810

DR. SHUVANAN RAY
Fortis Hospitals Ltd.
20130426
113109.484000



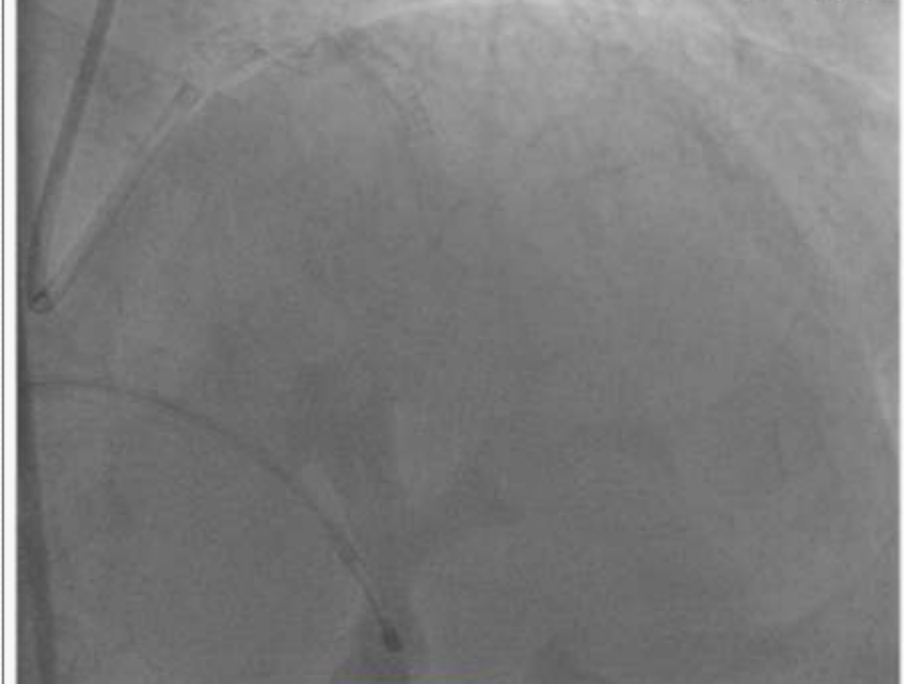
Rao - 19 deg ,Caud - 29 deg
Zoom: 99%



Run 38 Of 41
Frame 1 Of 68

PANNALAL RAY CHAUDHURI 78Y/M
M
16717 (PTCA) UHID - 72810

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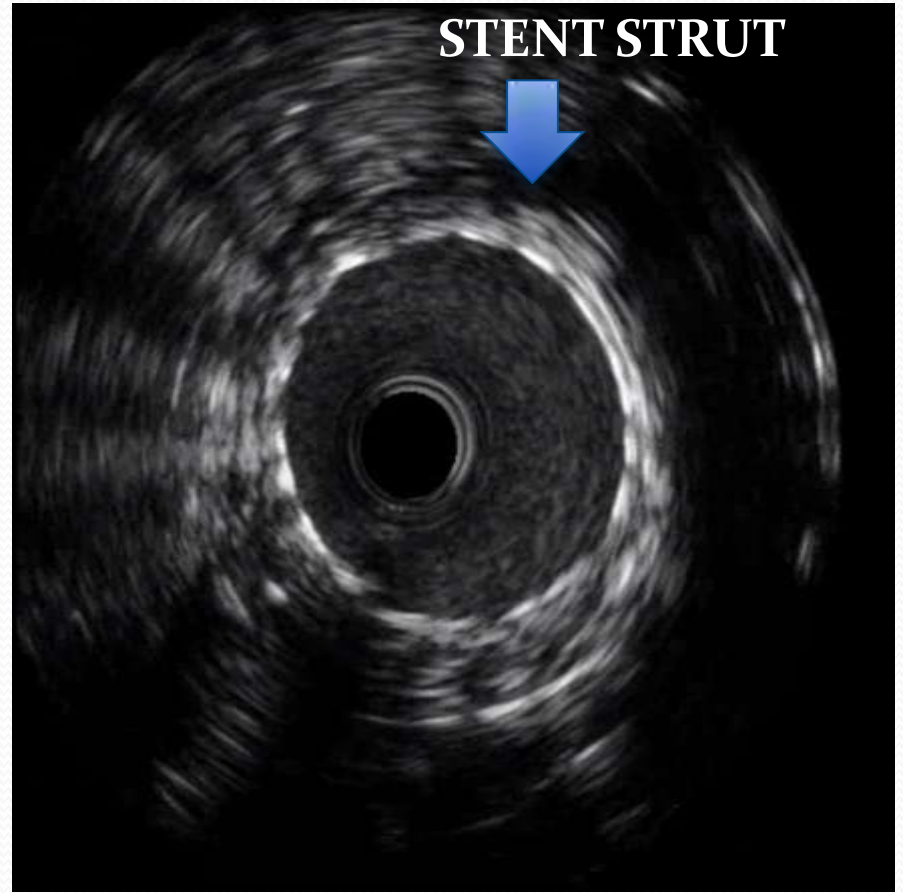
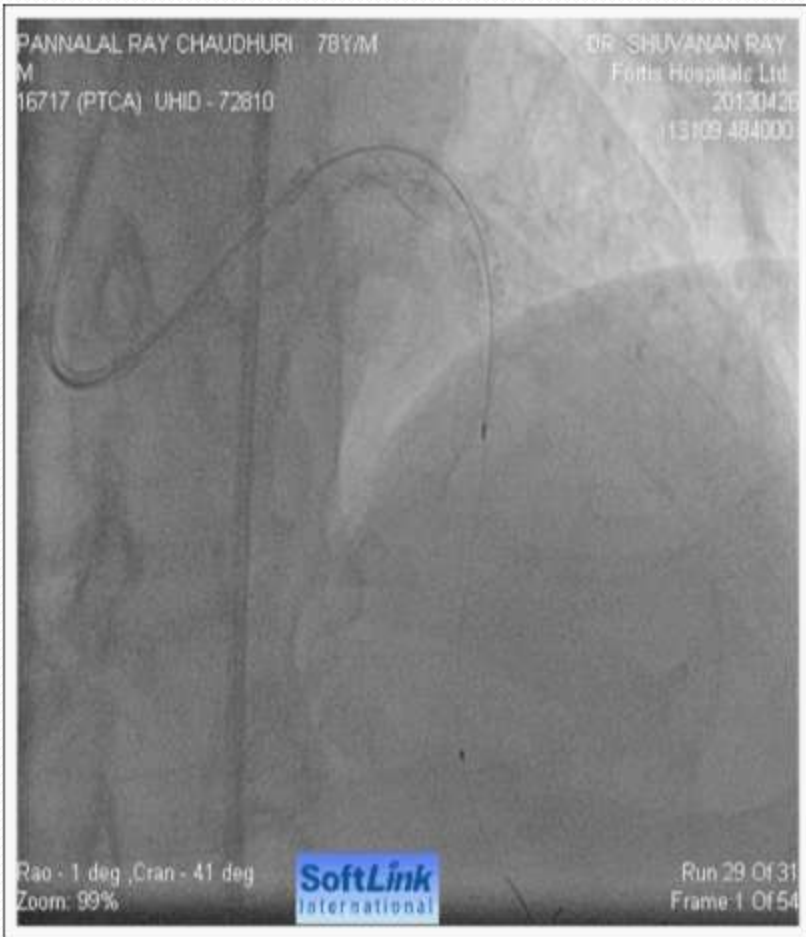
Rao - 21 deg ,Cran - 44 deg
Zoom: 99%



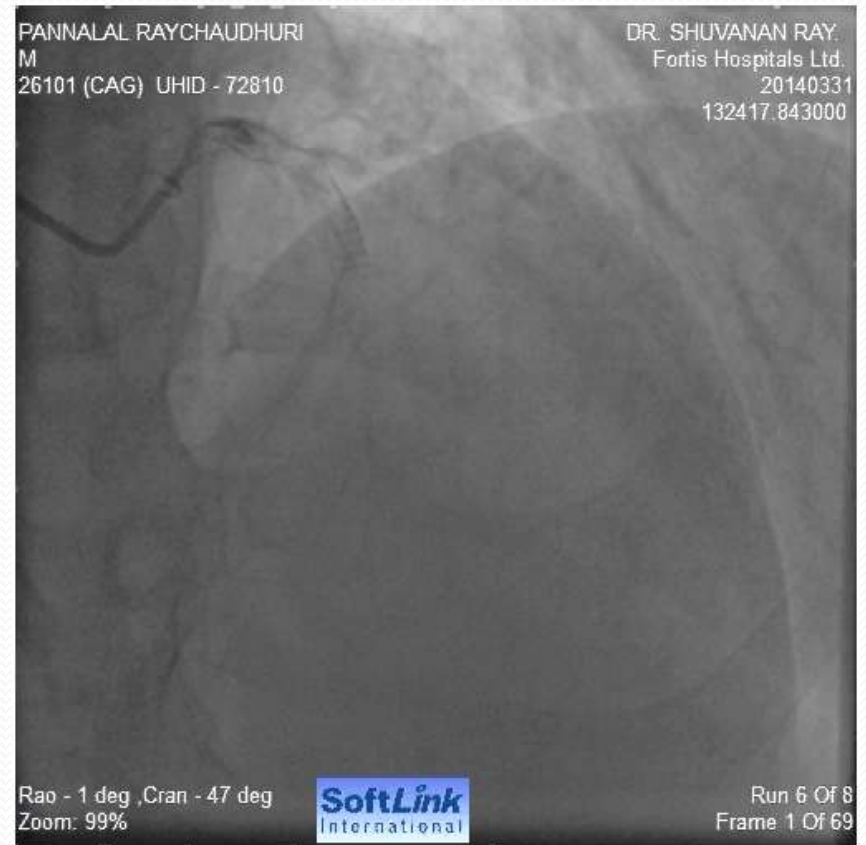
Run 40 Of 41
Frame 1 Of 69

Final Result





After 1 yr....



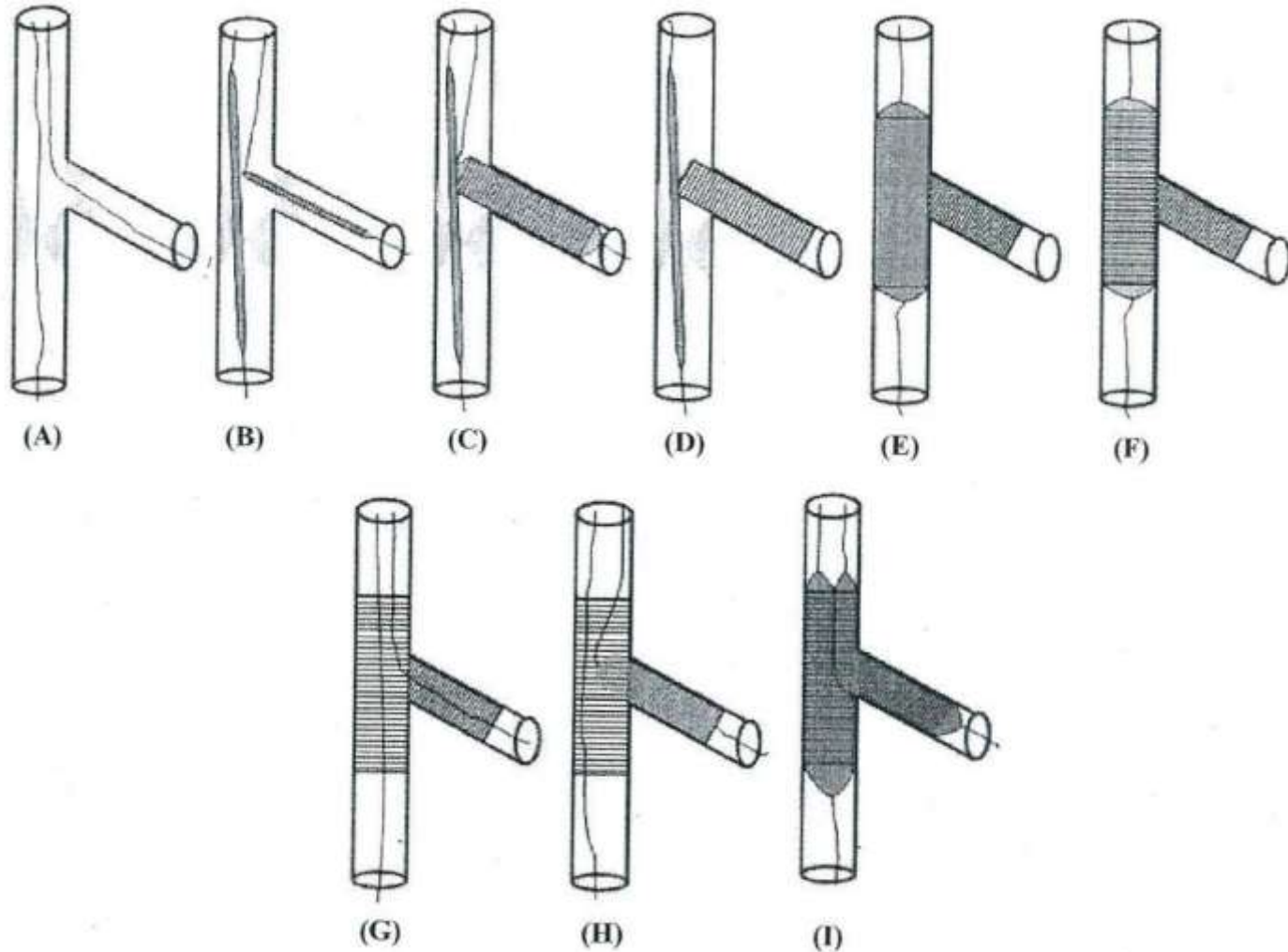
- **IVUS guided Artherectomy Rotablation with PTCA:**
- **Right Femoral Approach : Stent LMCA->LADm& LCX by DK crush Technique**

- ❖ LMCA was engaged with 7F X 3 side hole Guide Catheter.
- ❖ Rotablation: (LAD-Ostium-Proximal-Mid) using 1.5 mm Rota Link Plus at 1.8 million rpm.
- ❖ Rota Floppy wire again exchanged with BMW guide wire.
- ❖ LCX Lesion crossed with Whisper Extra Support GW & Predilated using Mini Trek 2x12 mm balloon at 12 atm pressure.
- ❖ Distal LMCA & LAD ostium- Pre-Dilated with Flextome 2.75 x 10 mm cutting balloon at (10 atm).
- ❖ LCX Stented: Xience Prime 2.75x18 mm DES, (at 10 atm) Covering Ostium into LMCA with NC Trek 3.5x12mm balloon across LMCA & LAD.
- ❖ LCX stent crushed using NC Trek 3.5x12 mm balloon, across LAD at 20 atm & FKB with 2.75x8 mm NC Trek in LCX at 20 atm pr.

PROCEDURE DETAILS Contd....

- ❖ LAD STENTED: Xience Prime 3.5x38 mm DES, covering whole LMCA & up to Ostium
- ❖ POST DILATATION: LCX crossed by Whisper extra support GW . Afterwards NC Trek 3.5x8 mm (at 24 atm),up to Ostium & in LMCA; Again dilated using NC Trek 4.5x12 mm balloon at 20 atm.
- ❖ Final KISSING balloon done with NC Trek (3x8 mm) in LCX & NC (4.5x12) in LMCA at 20 ATM.
- ❖ IC stent view guided post dilatation was done using NC Trek 4X8 mm balloon. In LAD
- ❖ Repeat pull back IVUS run was carried out to confirm stent apposition.
- ❖ Stent Apposition was confirmed & TIMI III flow was established in LAD & LCX

Double Kiss Step Crush Technique (Sleeve Technique)



Modified DK-Step Crush technique

- **WIRING OF BOTH MV & SB**
- **ADEQUATE DILATATION/PLAQUE MODIFICATION OF BOTH THE BRANCHES**
- **PUT ONE SIZE SMALLER BALLOON IN MV & STENT (ADEQUATE SIZE) IN MB**
- **DILATE THE BALLOON (NOMINAL PR). PULL THE SB STENT TO THE BALLOON & DEPLOY.**
- **DEFLATE BOTH BALLOONS & REMOVE SB BALLOON**
- **PUT NC BALLOON IN SB TO POST DILATE & DO KISSING INFLATION**
- **REMOVE BOTH BALLOONS**
- **PUT MV STENT & DEPLOY**
- **CROSS TRANSTRUT TO SB**
- **POST DILATE MV (INCLUDING POT) & FKB INFLATION USING NC BALLOONS FOR BOTH STENTS**

ADVANTAGE

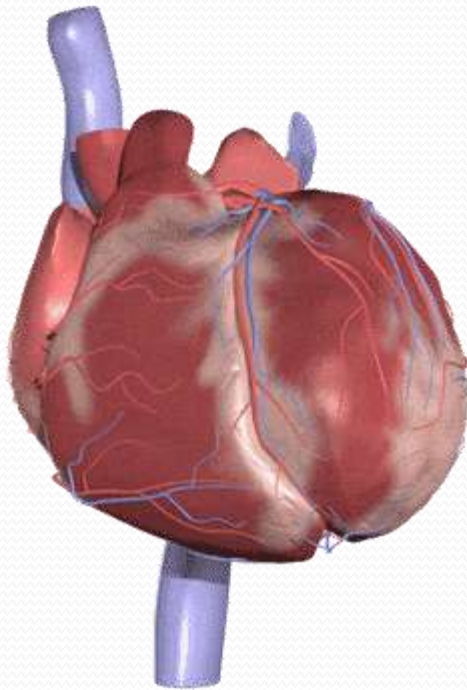
- TO POSITION SB STENT AT THE RIGHT PLACE (NOT MISSING THE OSTIUM & NOT HANGING MUCH IN MB)

DRAWBACK

- STEEP LEARNING CURVE

Learning points

- HIGH SYNTAX SCORE SHOULD NOT BE CONSIDERED OUTRIGHT CONTRAINDICATION FOR PCI
- ROTABLATOR/CUTTING BALLOON ARE OFTEN REQUIRED FOR PLAQUE MODIFICATION
- MODIFIED DK CRUSH IS A GOOD TECHNIQUE TO UNDERTAKE IN COMPLEX LM BIFURCATION DISEASE.



THANK YOU...