PCI in Renal Transplant Patient with ACS

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45 year old Chinese female

Coronary artery disease since 2001

- coronary angiogram in 2002 showed mild stenosis of the proximal LAD with calcification

End stage renal failure -underwent local cadaveric transplant on 28th June 2008

Parathyroidectomy in 2003 for tertiary hyperparathyroidism

Dyslipidaemia

Hypertension

Admitted to a local government hospital in September 2008 for acute coronary syndrome

Did not improve despite maximal medical therapy

Coronary angiogram was performed on the 15th September 2008

Discussed with patient regarding options for revascularization

Referred to surgeon for bypass surgery

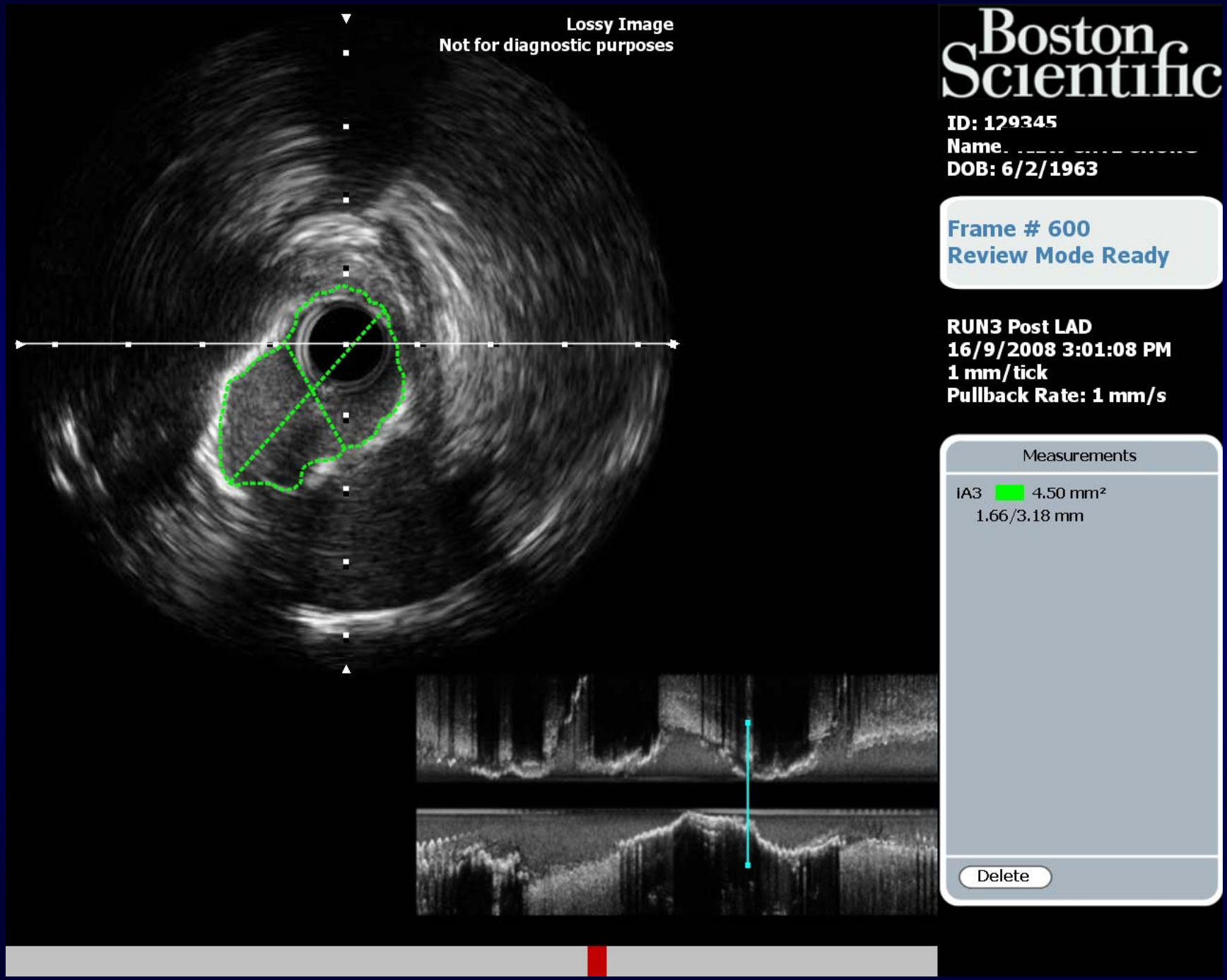
Was declined by patient and requested for PCI

Proceeded with PCI and rotational atherectomy to the LAD

1.75 mm burr and subsequently 2.0 mm burr was used

IVUS was performed post rotablation.

Showed a CSA of 4.5 mm^2 at the lesion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RUN3 Post LAD
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Measurements
IA3 4.50 mm²
1.66/3.18 mm
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Opted not to stent the lesion in view of the dense calcification

Heavily calcified coronary lesions preclude strut apposition despite high pressure balloon dilatation and rotational atherectomy: in-vivo demonstration with optical coherence tomography.

Tanigawa J, Barlis P, Di Mario C.

Circ J. 2008 Jan;72(1):157-60.

- Heavily calcified lesions
- Use of OCT (Optical Coherence Tomography) high prevalence of stent strut malapposition despite use of high pressure dilatation or rotational atherectomy

Impact of vessel calcification on outcomes after coronary stenting.

Mosseri M, Satler LF, Pichard AD, Waksman R.

Cardiovasc Revasc Med. 2005 Oct-Dec;6(4):147-53.

- 621 Patients – Bare Metal stenting of calcified lesions
- Severe degree of calcification (> 270˚) – Malapposition of stents to vessel wall and use of rotational atherectomy more frequent (P=0.001)
- More frequent peri-procedural non-Q wave MI
- Late event rate, not different from mildly calcified arteries.

Coronary stenting after rotational atherectomy in calcified and complex lesions. Angiographic and clinical follow-up results.

Moussa I, Di Mario C, Moses J, Reimers B, Di Francesco L, Martini G, Tobis J, Colombo A. Circulation. 1997 Jul 1;96(1):128-36.

- 75 patients – 106 lesions, Rotational Atherectomy prior to coronary stenting
- Acute stent thrombosis in two lesions (1.9%)
- Sub Acute stent thrombosis, one lesion (0.9%)

Global Perspective :

Management of Coronary Lesions