



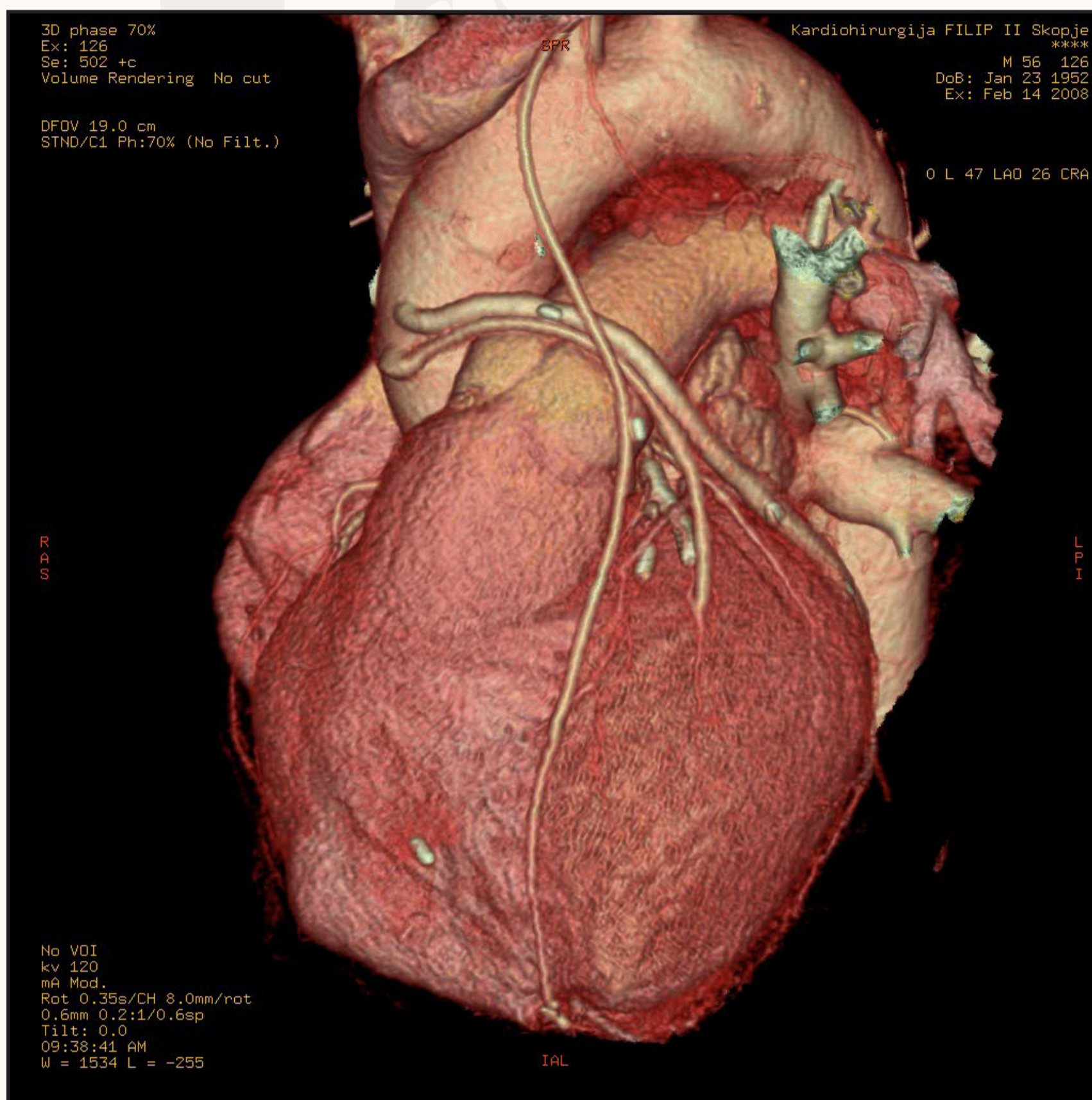
SPECIAL SURGERY HOSPITAL

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# Assessment of Grafts and Coronary Arteries with 64-slice Computer Tomography (CT) Angiography after Coronary Artery Bypass Surgery - our experiences

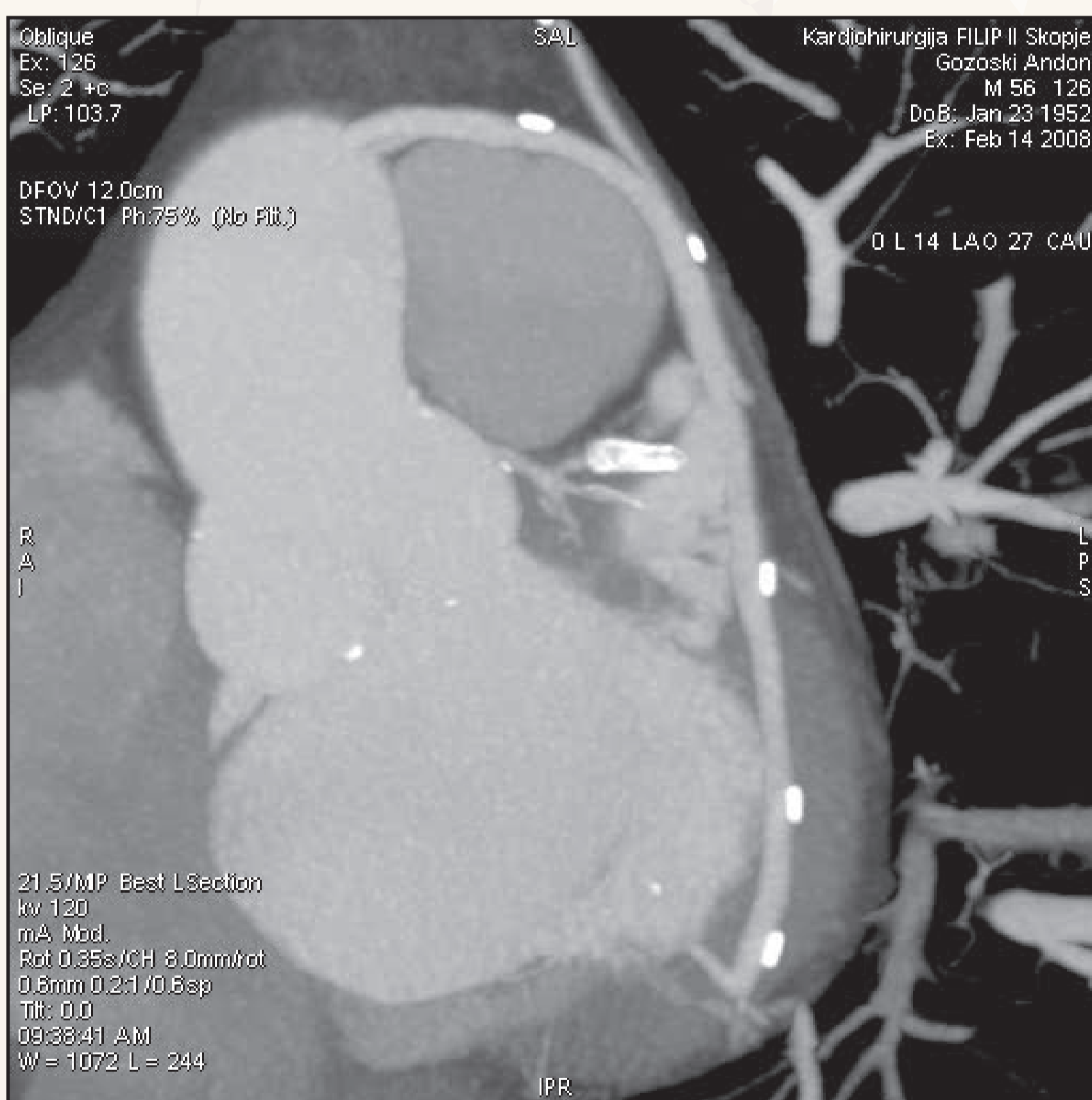
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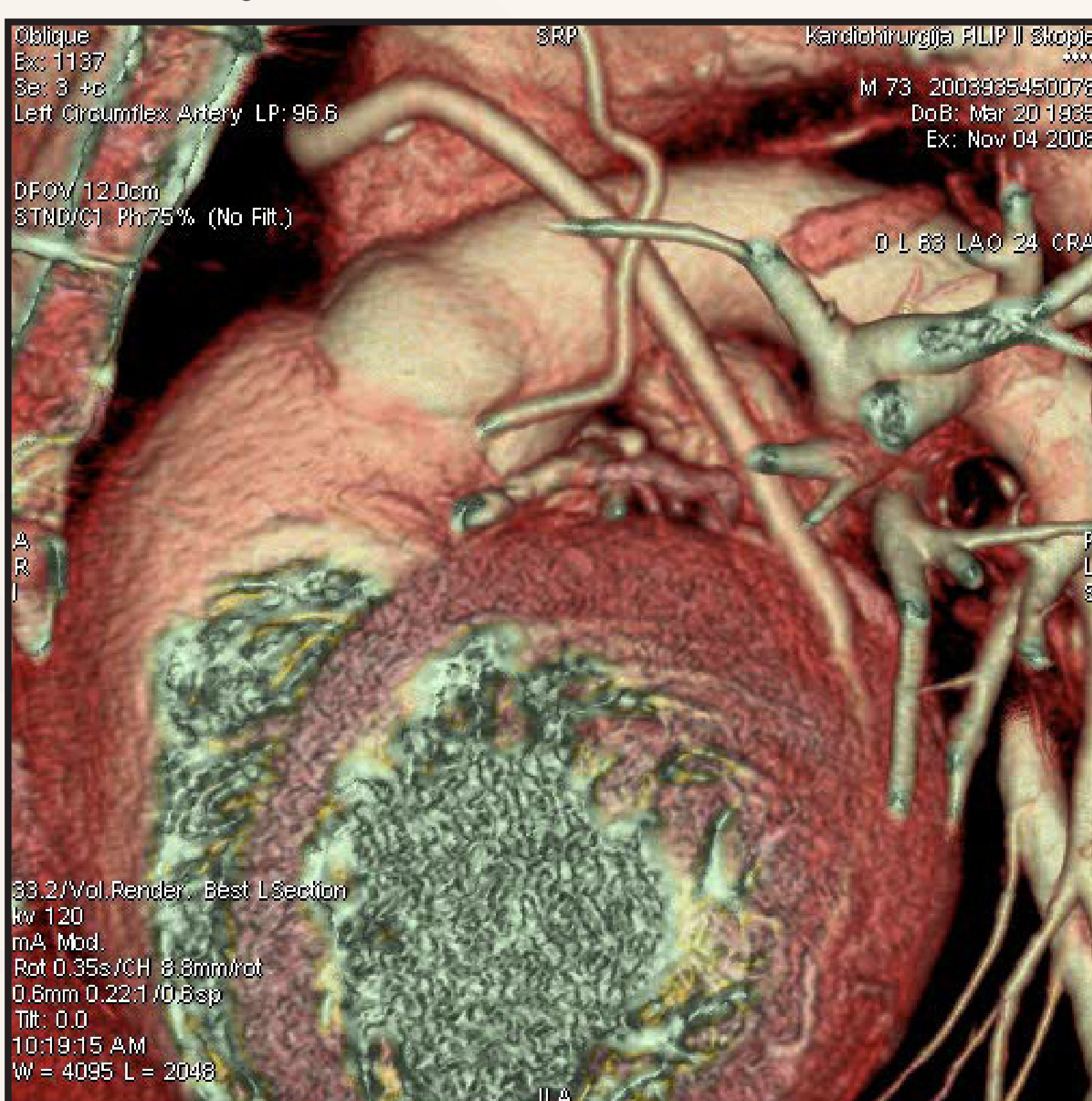
Picture 1. 3D presentation of two arterial and one venous graft (IMA, RA and VSG)



Picture 2. 2D presentation of IMA LCA anastomosis



Picture 8. Venous graft



Picture 4. Venous graft on Cx

**AIM:** The use of 64 slice CT (GE Light-Speed VCT) in evaluation of pathway and patency of the grafts, distal anastomosis and native vascular net in patients (pts) after coronary artery bypass grafting (CABG).

**MATERIALS AND METHODS:** Through a 4 months, we performed CT angiography by protocol for coronary analysis, electrocardiography gated, contrast enhanced in 40 pts up to 8 years (yrs) after coronary stenting (PCI) with reocclusion of stents and subsequent CABG. Premedication with i.v  $\beta$ -blockers was administrated in all with heart rate  $>70$  hbm; pts with arrhythmia were excluded.

**RESULTS:** The CTA images were optimal for all bypass grafts, distal anastomosis of grafted and all non grafted coronaries.

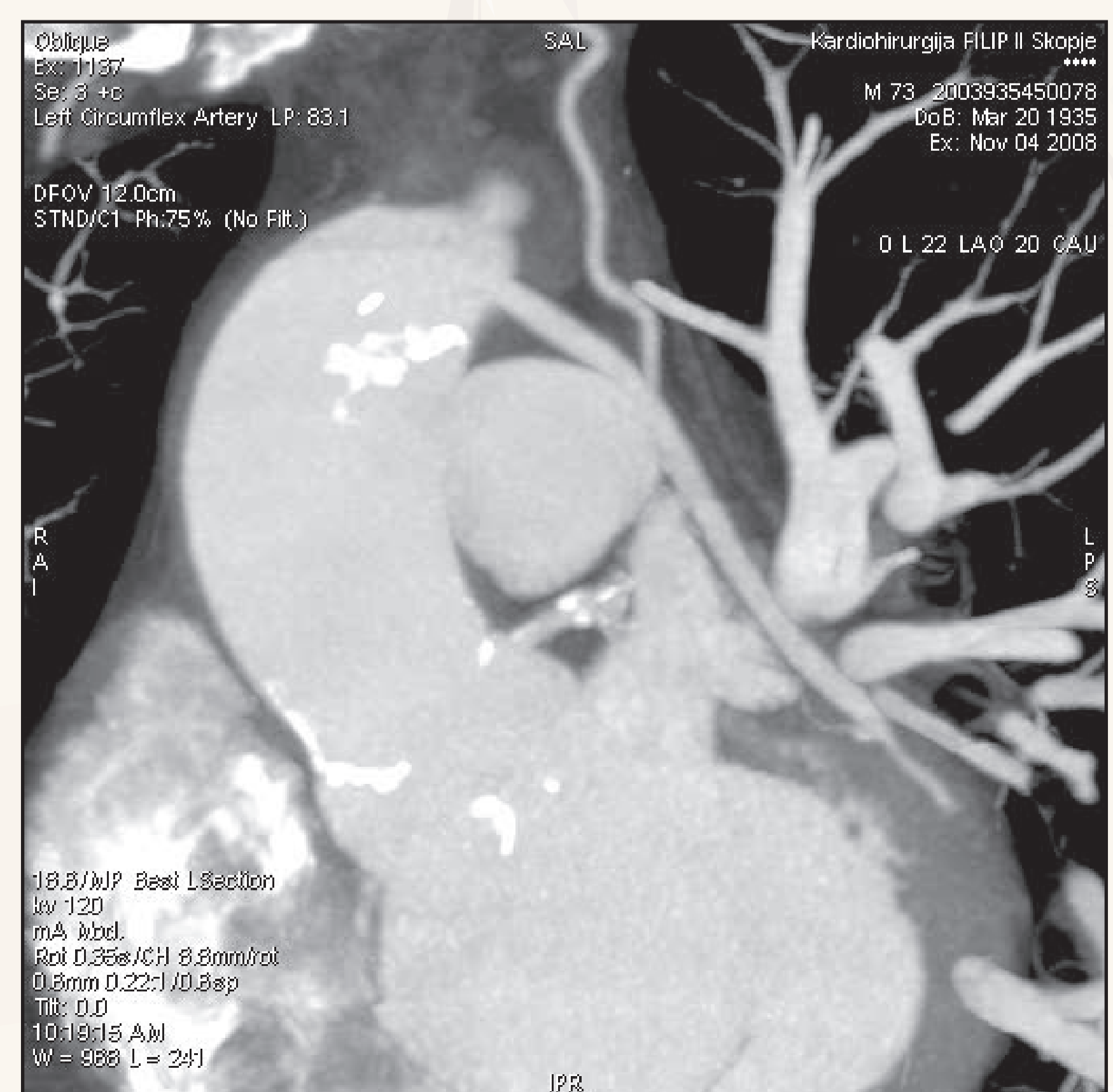
Patient characteristics	
Mean age	65 $\pm$ 4 yrs
Male	65%
Female	35%
with major risks (smokers, DM II, HTA, HLP)	70%
mean EF	35% $\pm$ 15
PCI coronary stenting before CABG	1-4 yrs
time after CABG	5 $\pm$ 1 yrs.

CTA evaluation:	
<b>BYPASS GRAFTS</b>	93
venous	35
occlusions	11 (31%)
stenosis	3 (9%)
<b>arterial</b>	58 (40 IMA, 18 radial artery-RA)
occlusions	7 (2 IMA, 5 RA) (12%)
stenosis	0

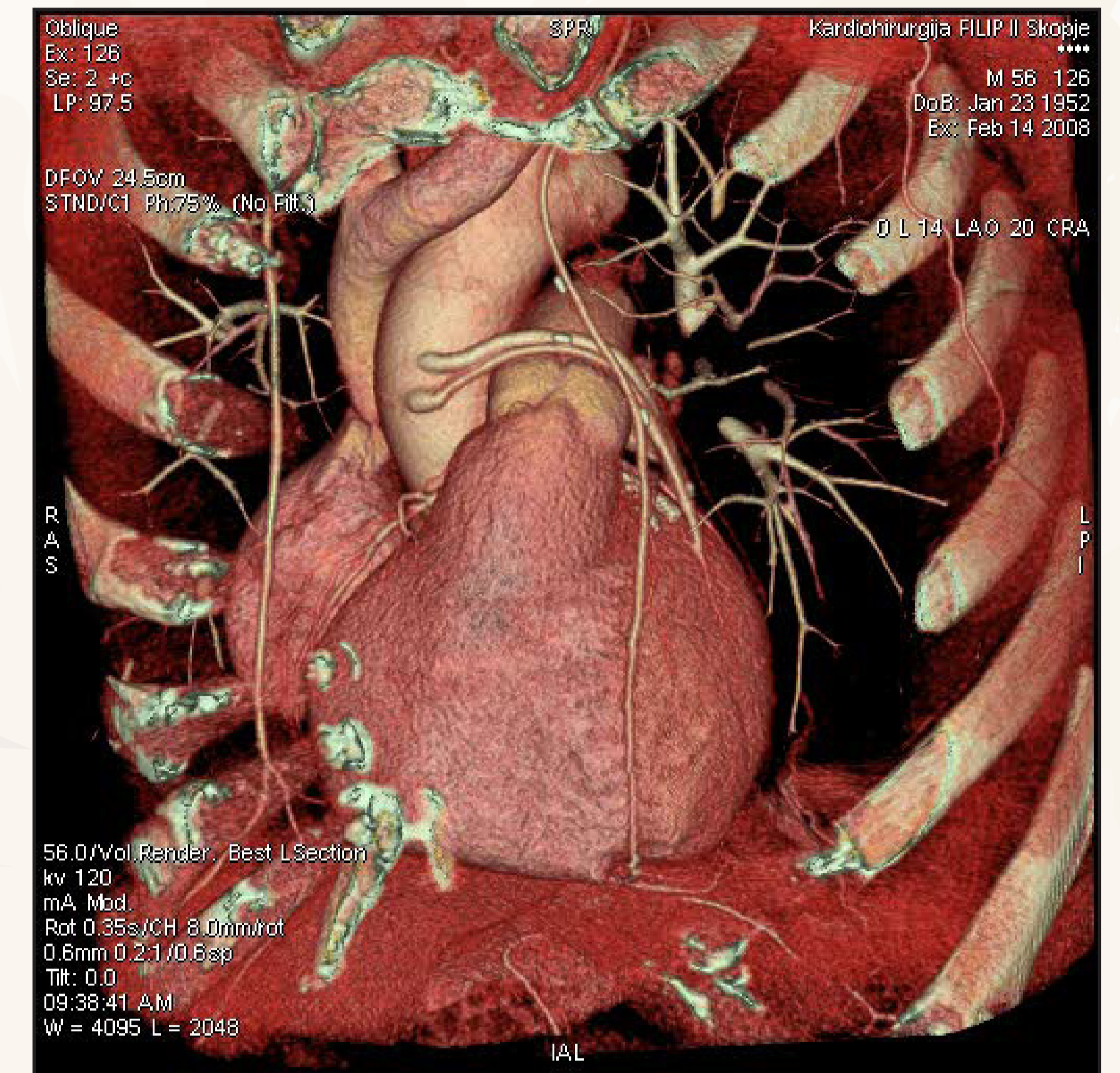
GRAFTED CORONARIES with arterial grafts	
LCA	40 (69%)
RCA	18 (31%)

NON GRAFTED CORONARIES	
occlusions	6 (22%)
stenosis	10 (37%)

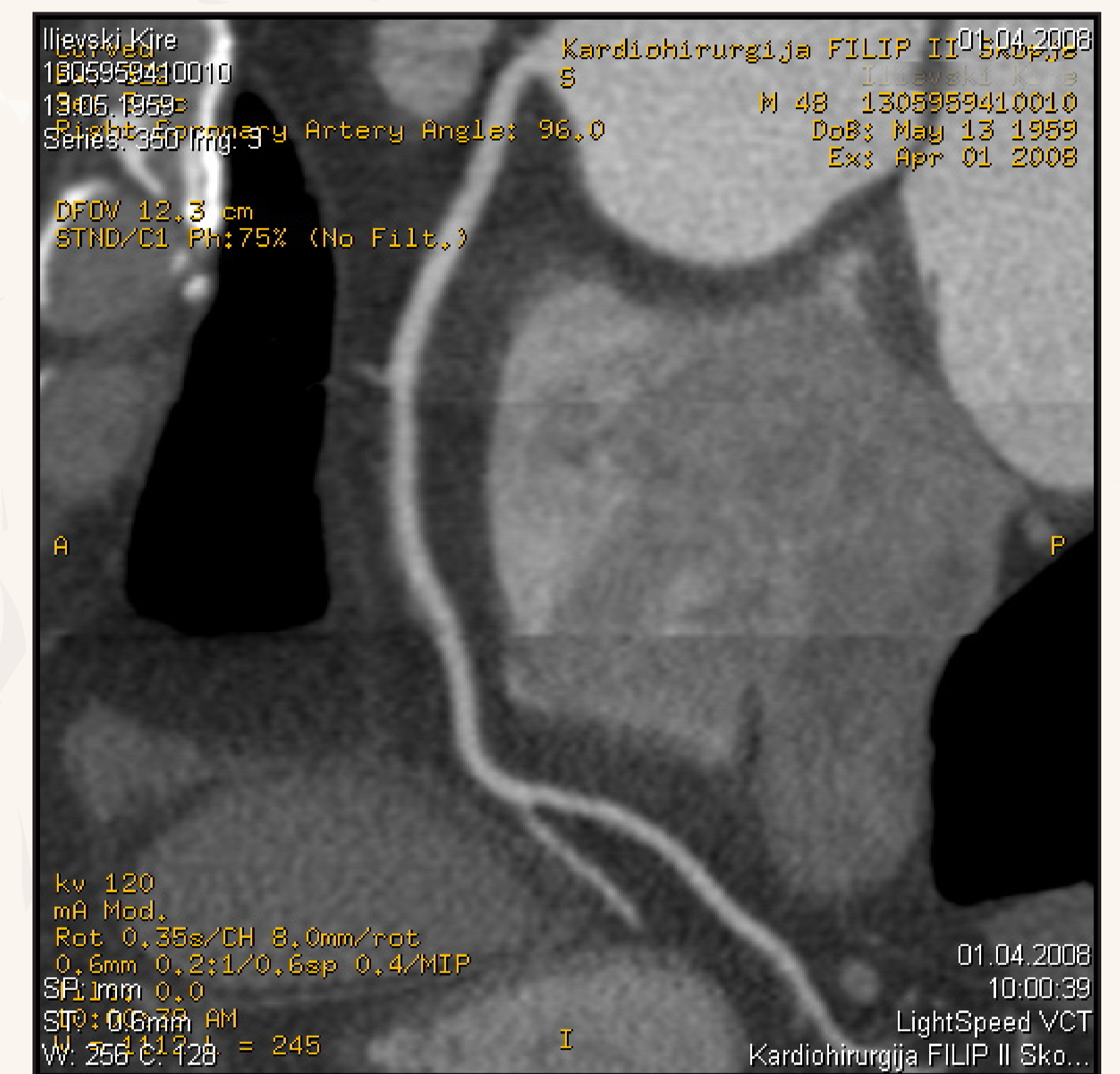
**CONCLUSION:** CT angiography allows noninvasive evaluation and detection of obstructive lesions and status of patency in both bypass grafts and non grafted coronary arteries in pts after CABG.



Picture 5. Venous graft on Cx



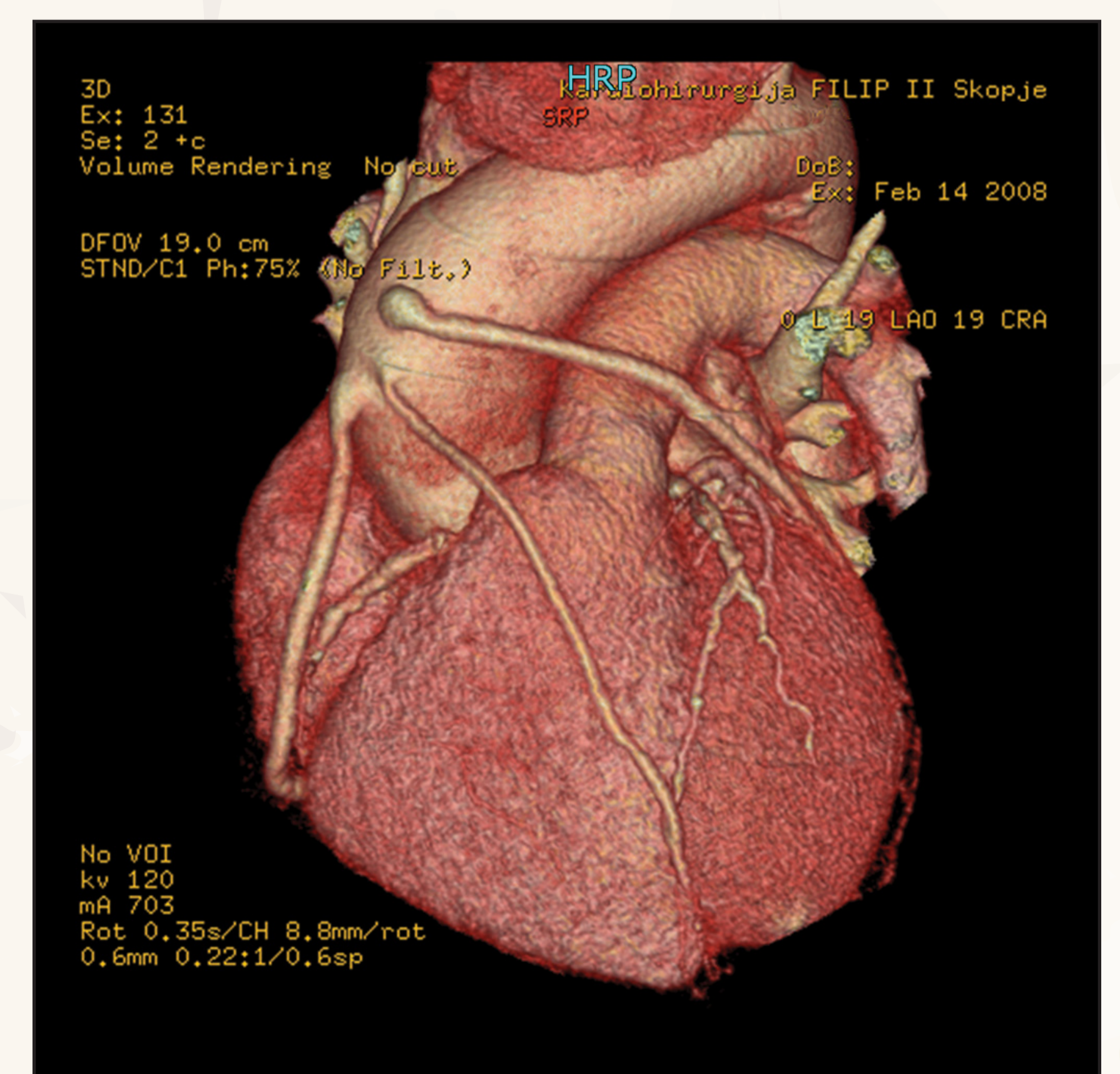
Picture 6. 3D presentation of two arterial and one venous graft (IMA, RA and VSG)



Picture 7. Nongrafted RCA



Picture 3. Grafted LCA with implanted bare metal stent



Picture 9. 9A-LCA, VSG-RCA, VSG-LCx