64 slice CT Angiography

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Special hospital for surgery diseases
“Filip II”
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64 CT ANGIOGRAPHY

- Non invasive procedure, comfortable for the patient
- Great spatial and temporal resolution,slice thickness - 0,625 mm (provide excellent details that allow identification of vascular anomalies and different pathological entities)
- 3D post-processing
- Method of choise for emergency cases

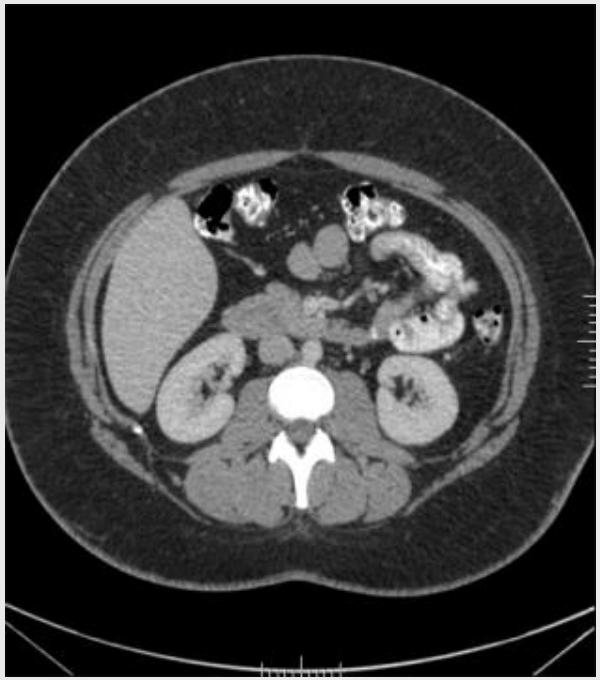
(dissection,trauma)

CT ANGIOGRAPHY- INDICATIONS

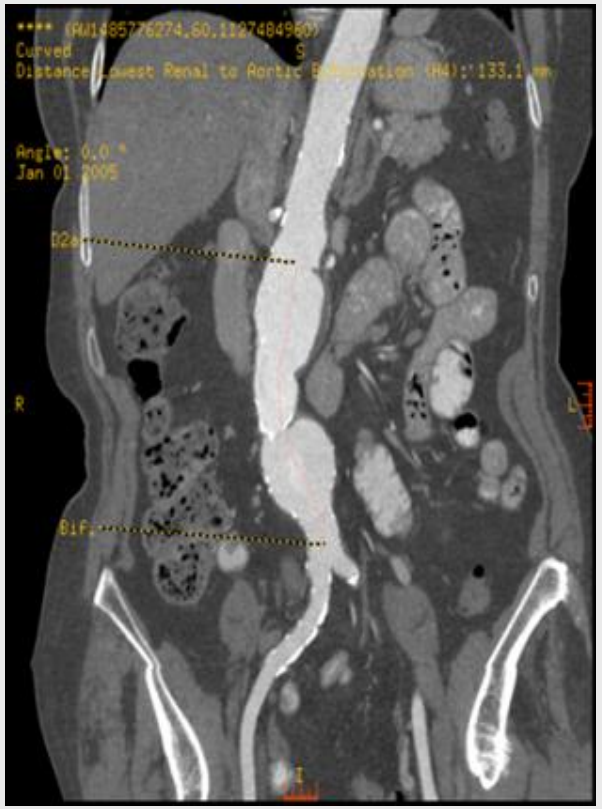
- Vascular anomalies
- Trauma-rupture, stenosis, occlusion
- Pathological vascularisation of the tumors
- Aneurysmatical disease and dissection of the aorta
- Aneurysmatical disease of intracranial vessels
- Planing - interventions, stenting or vascular surgery
- Postinterventional follow up (grafts, stents)


DFOV 67.3cm
STND
R
3
4
2
L
3
3
1
No VOI
kv 120
mA Mod.
Rot 0.80s/HE 39.4mm/rot

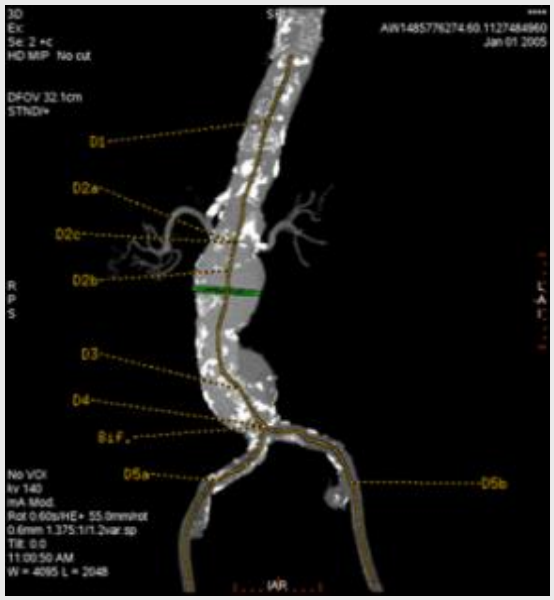
Aorta

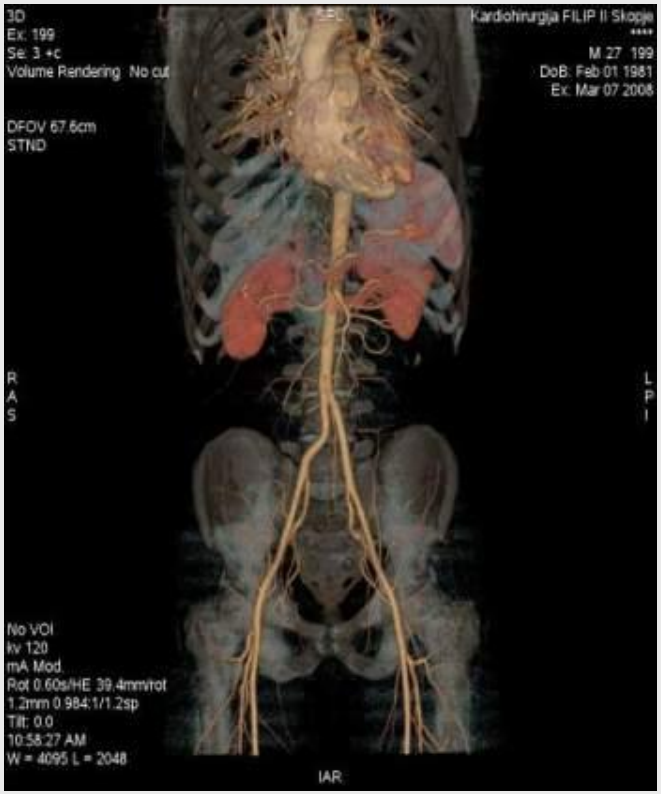


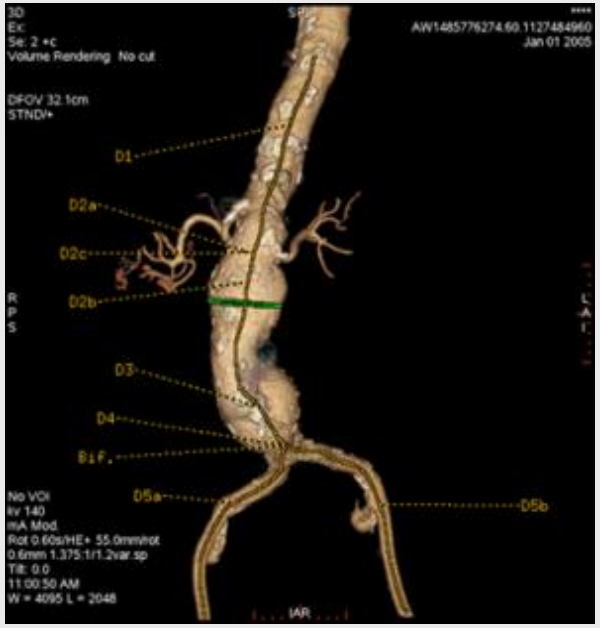

Curved
Distance Lowest Renal to Aortic
Angle: 90.0 °
Jan 01 2005
D2a
Bif.
A
P
I

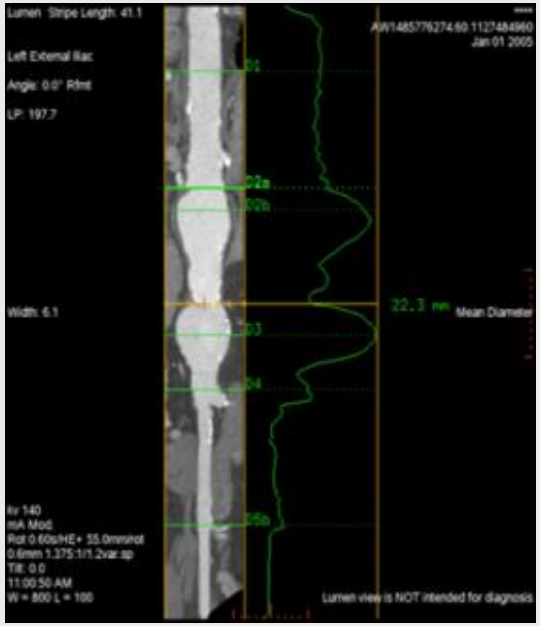

Curved
Angle: 0.0 °
Jan 01 2005
D2a
Bif.
R
L
I

Aorta

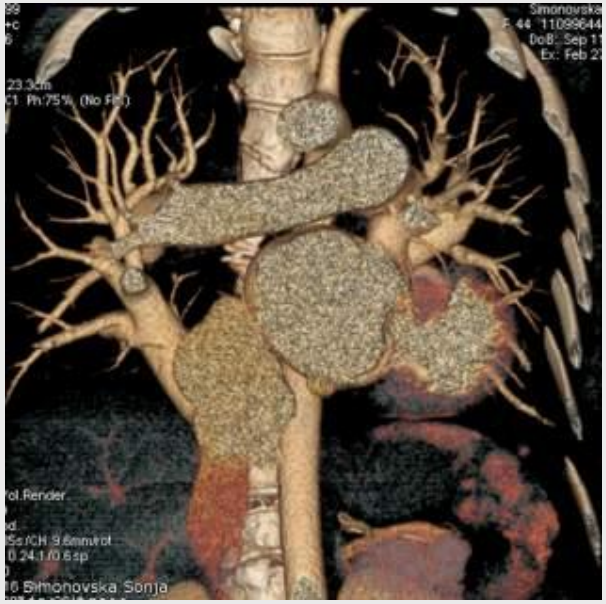

D1
D2a
D2c
D2b
D3
D4
Bif.
D5a
D5b

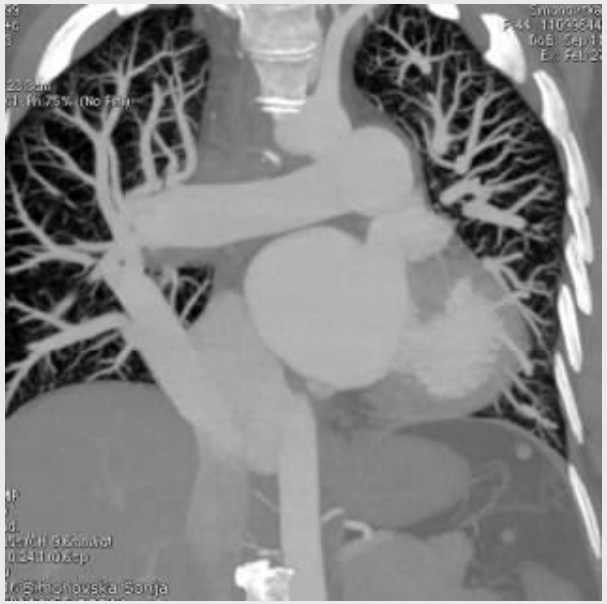

Kardiohirurgija FILIP II Skopje
DFOV 67.6cm
STND
No VOI
kv 120
mA Mod.
IAR


D1
D2a
D2c
D2b
D3
D4
Bif.
D5a
D5b
IAR

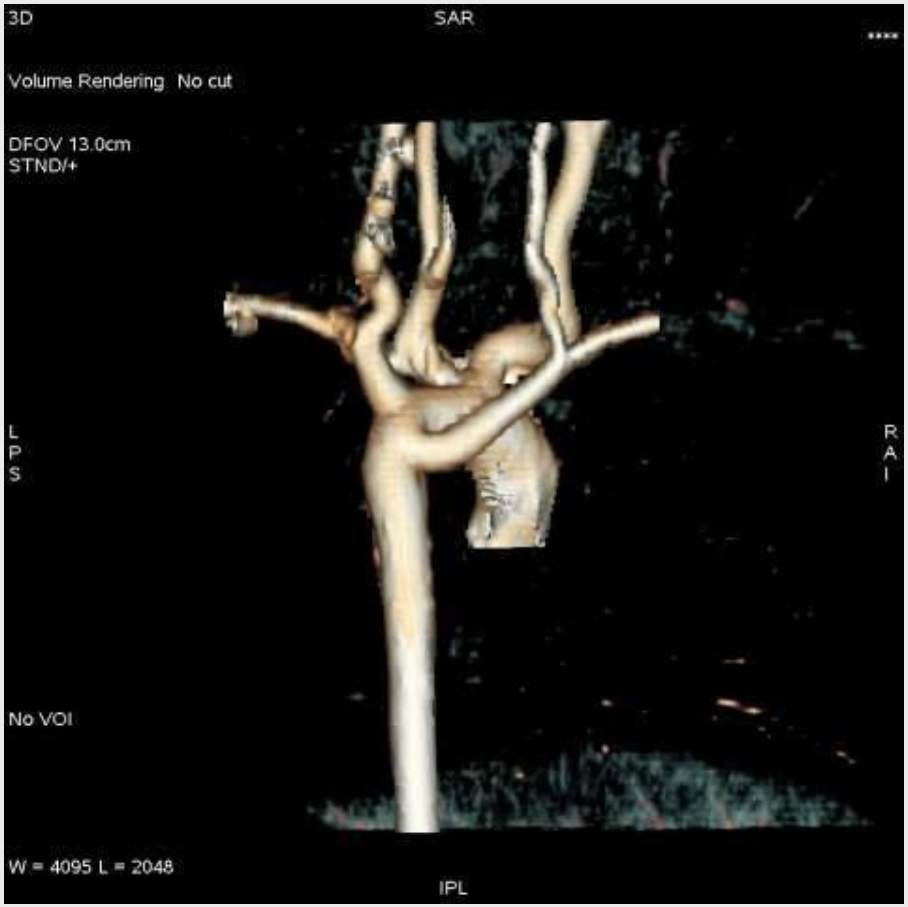

Left External Iliac
D1
D2a
D2b
D3
D4
D5a
D5b
Mean Diameter
Lumen view is NOT intended for diagnosis

Congenital anomalies – scimitar syndrome

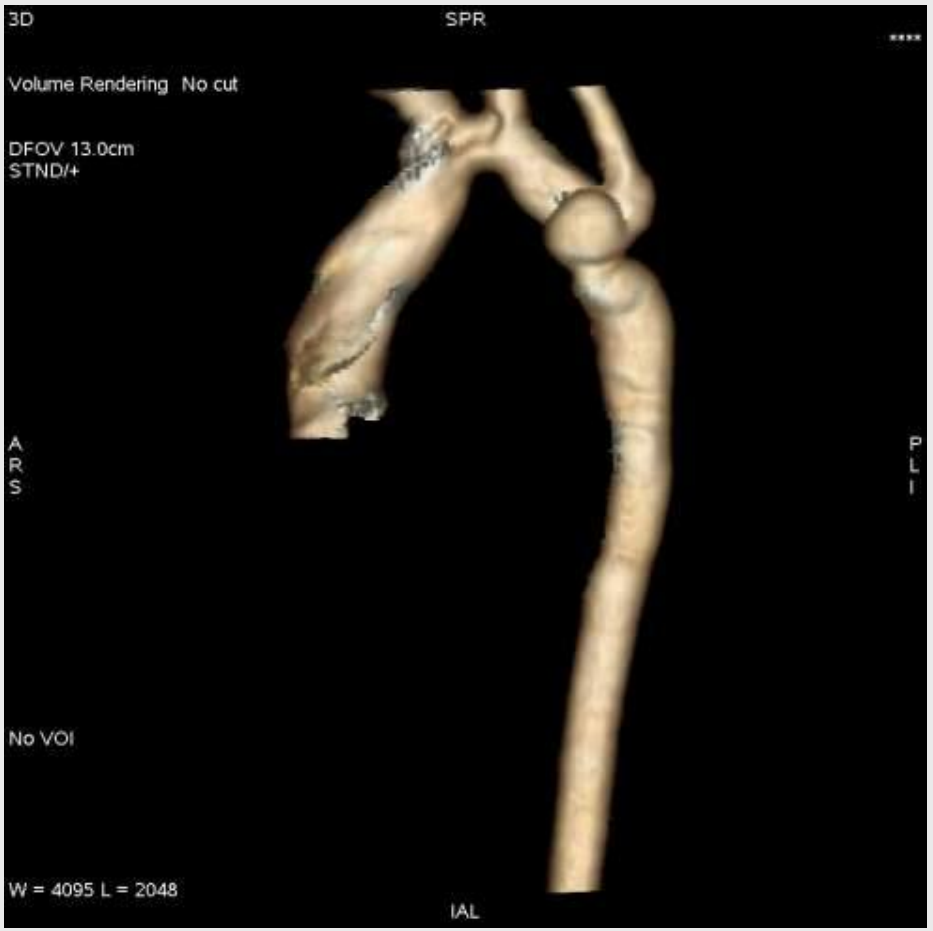




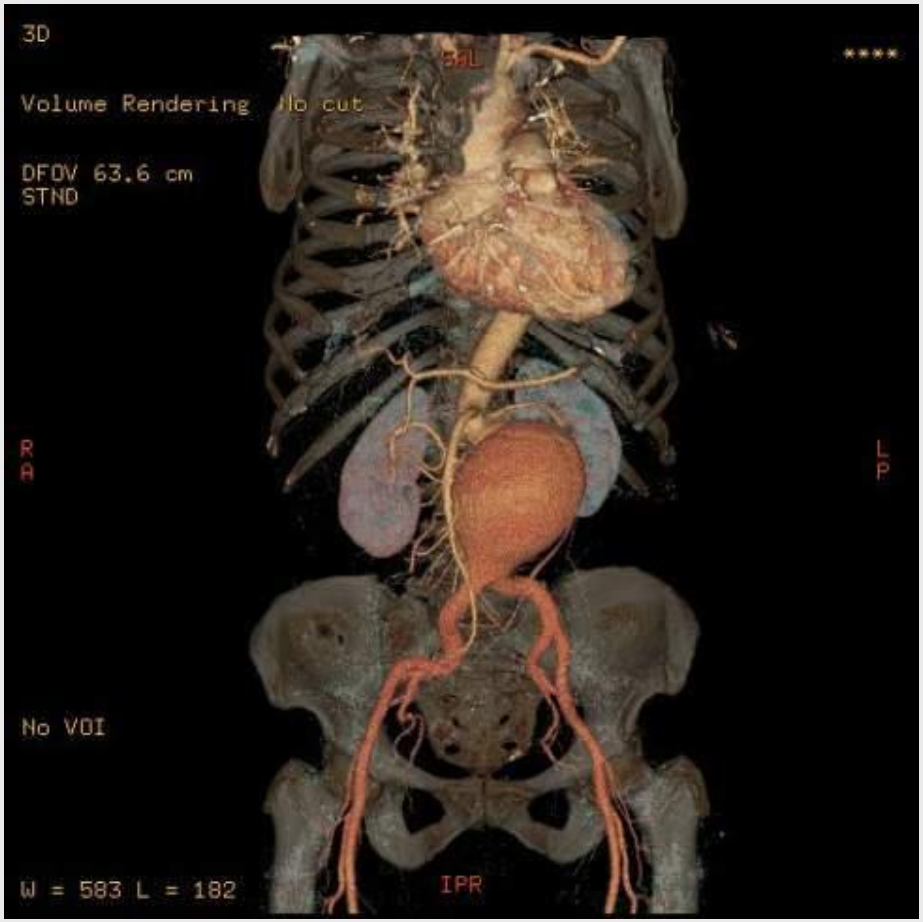
Congenital anomalies, vascular ring



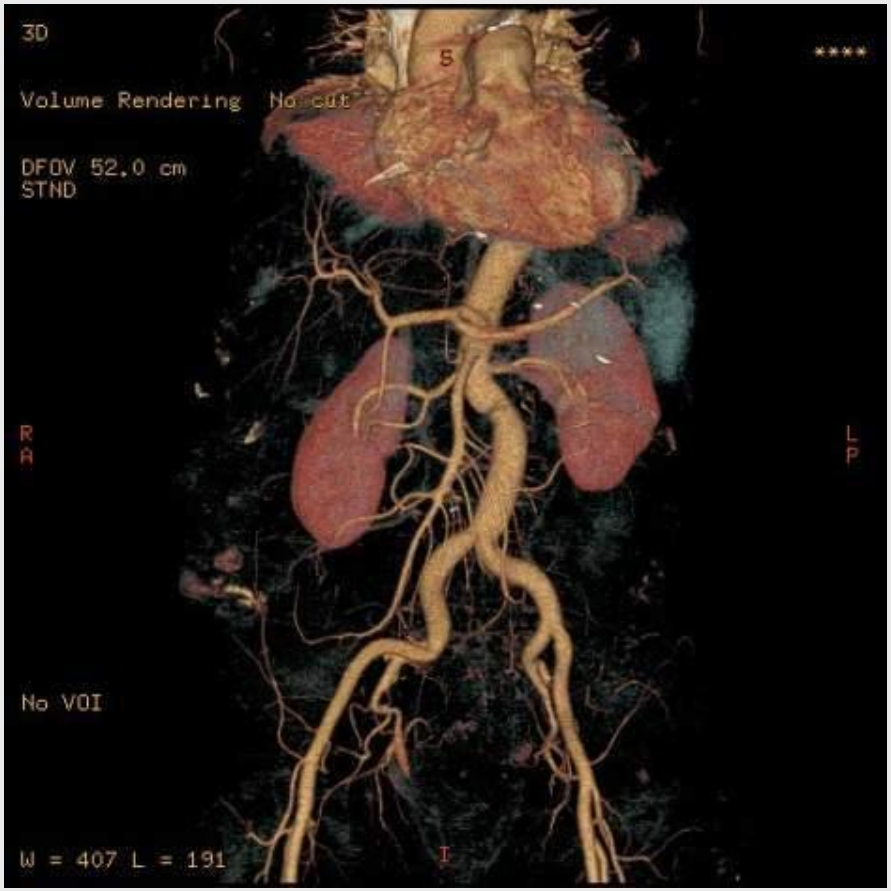
Congenital anomalies, coarctaction



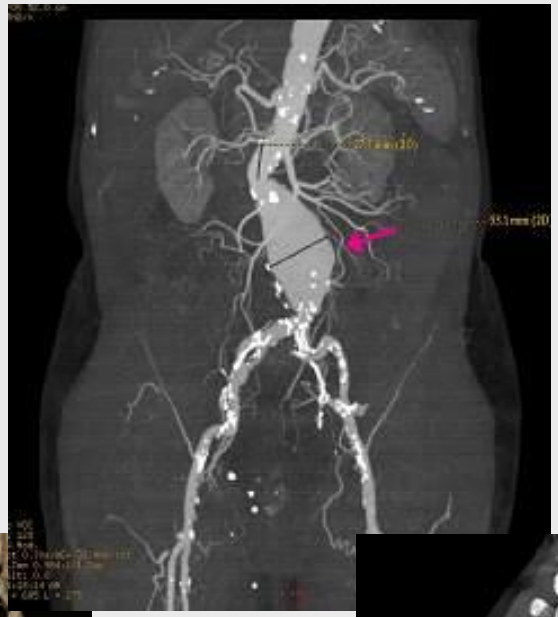
Abdominal Aorta – Infrarenal Aneurysm



Abdominal Aorta – Infrarenal Aneurysm

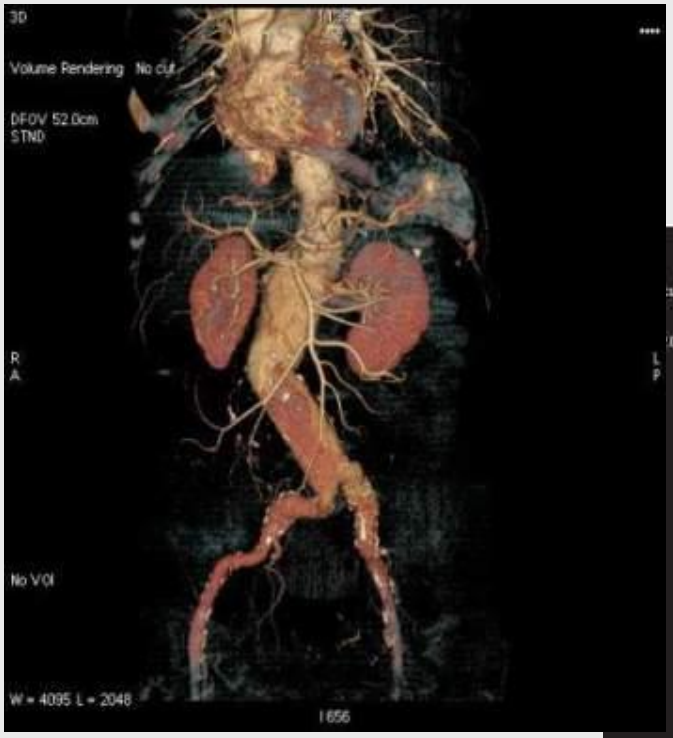


Abdominal Aorta – Infrarenal Aneurysm



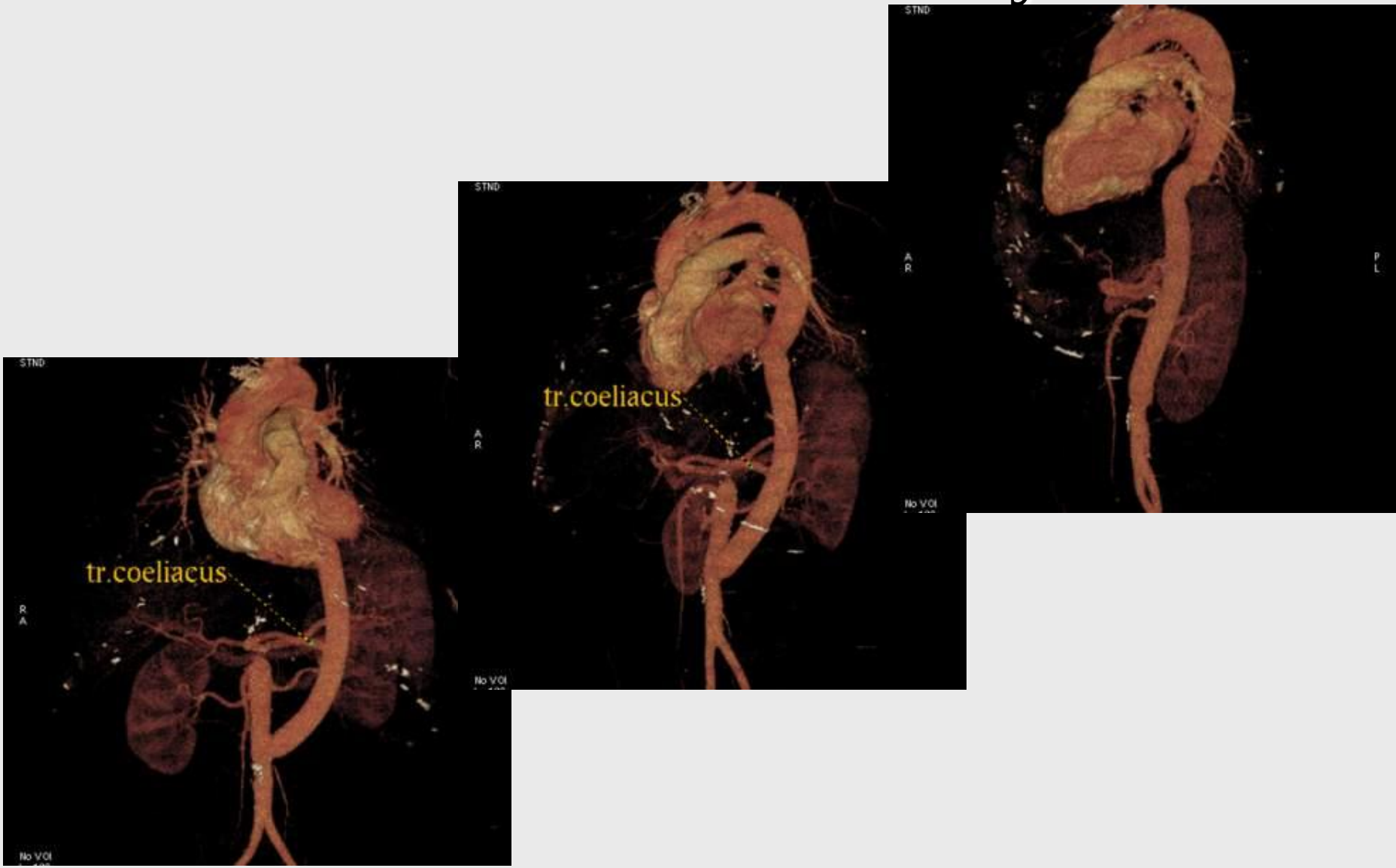
Toracoabdominal aneurysm

Thoracoabdominal aneurysm

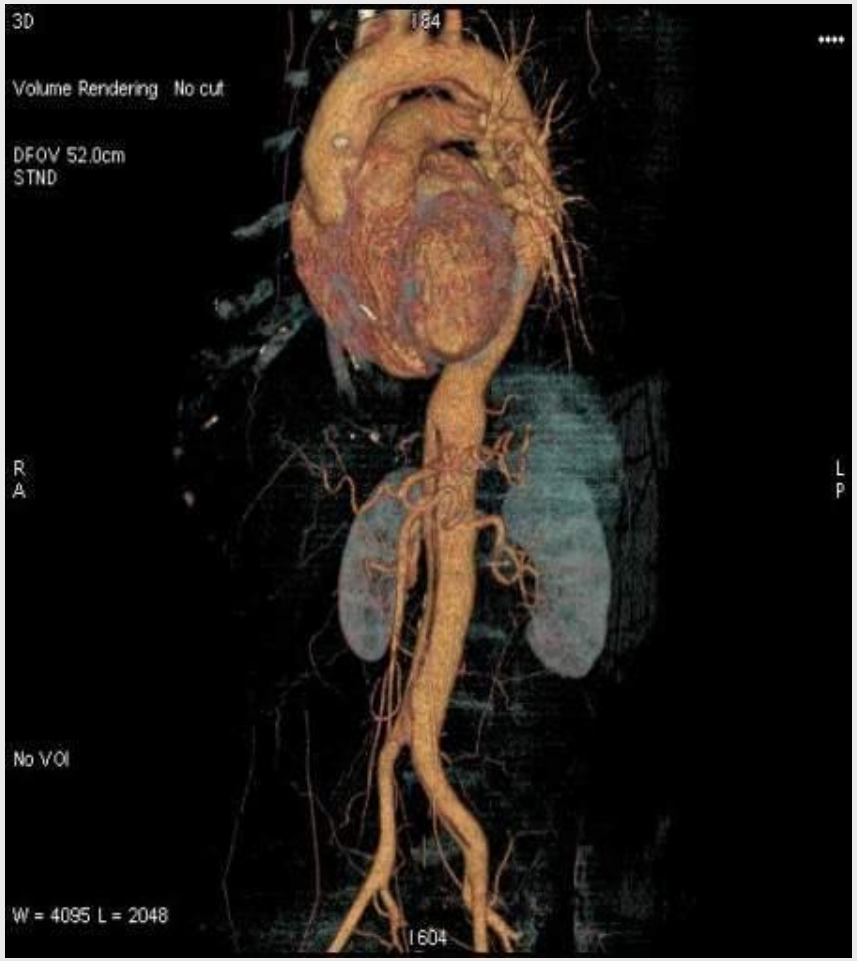


Thoracoabdominal aneurysm

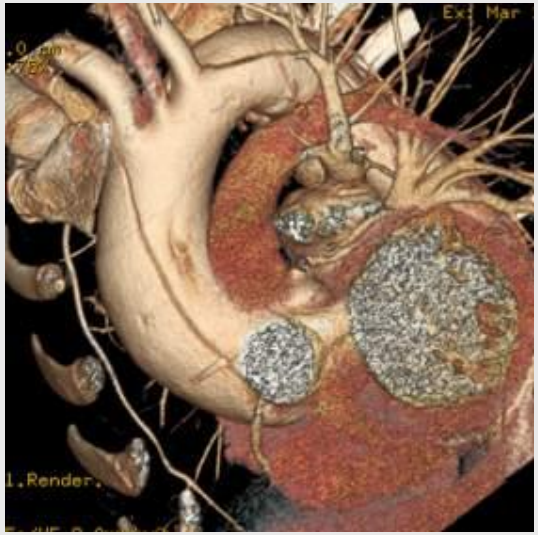
Thoracoabdominal aneurysm



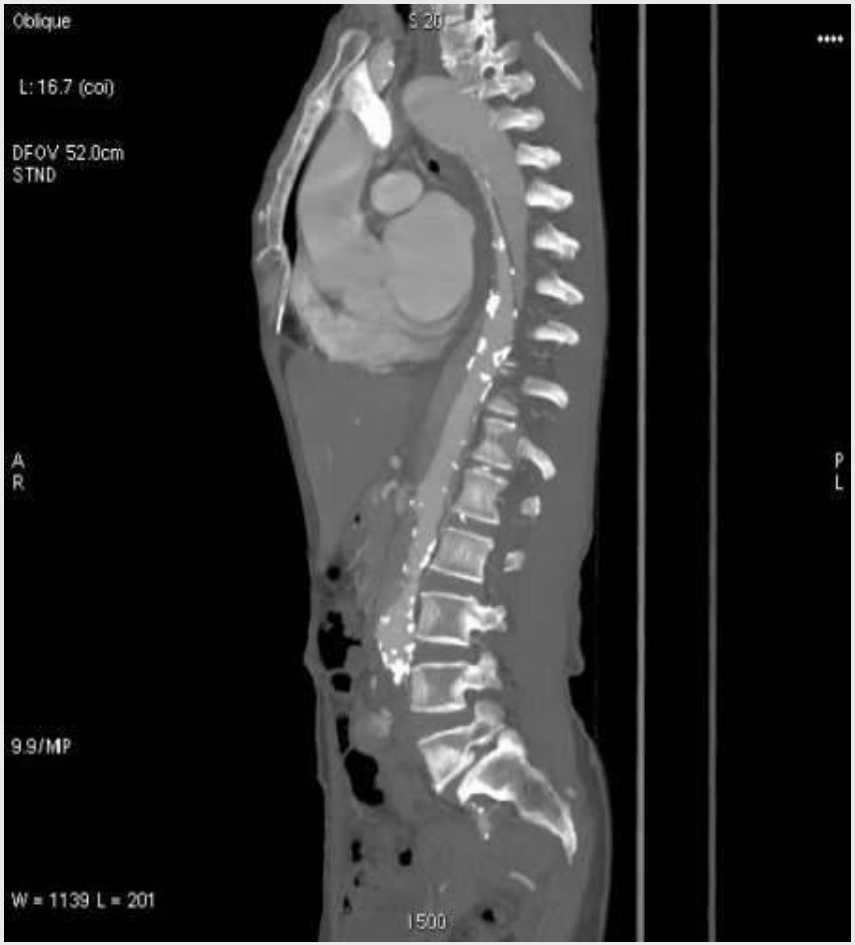
Dissection Stanford A

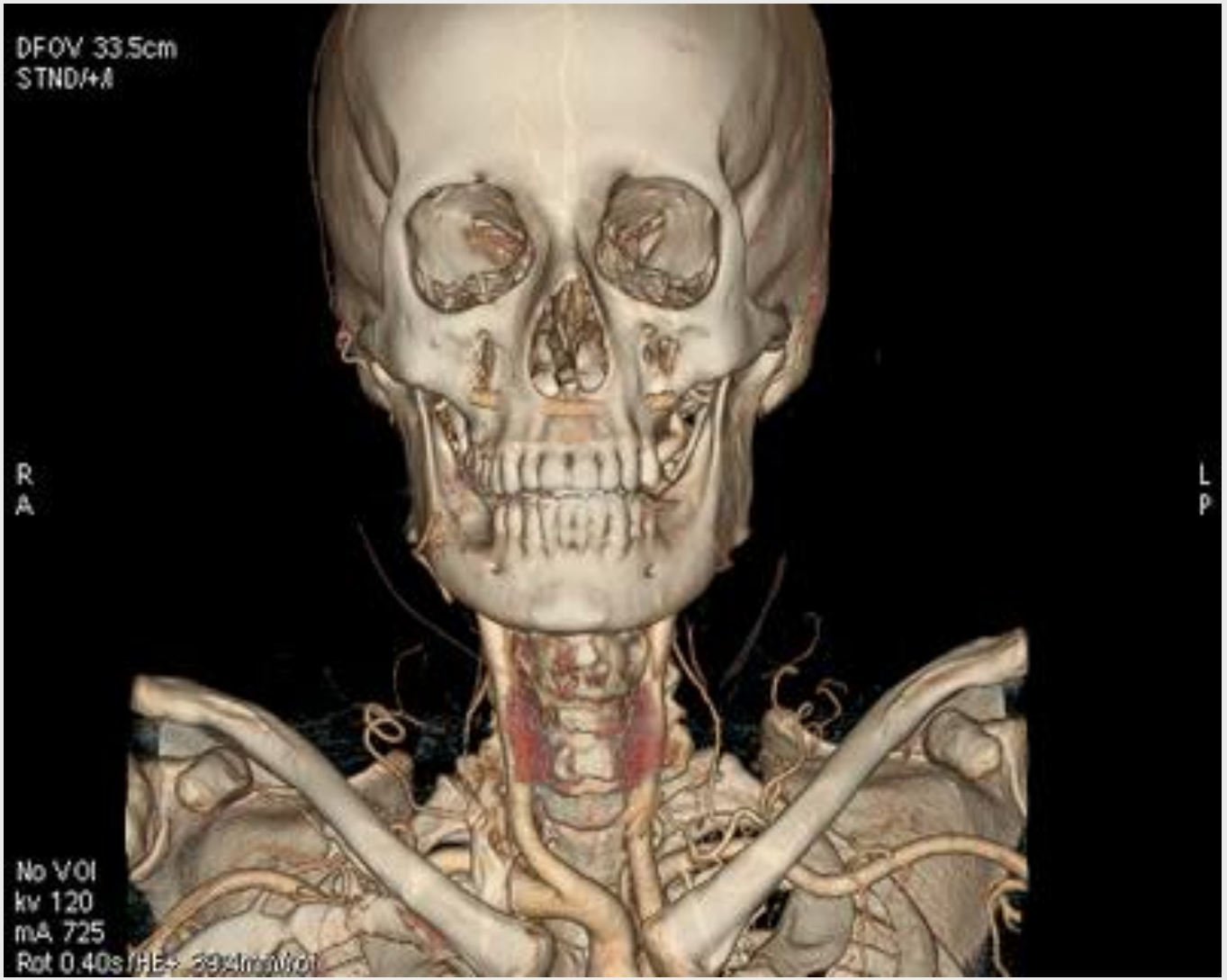


Dissection Stanford A

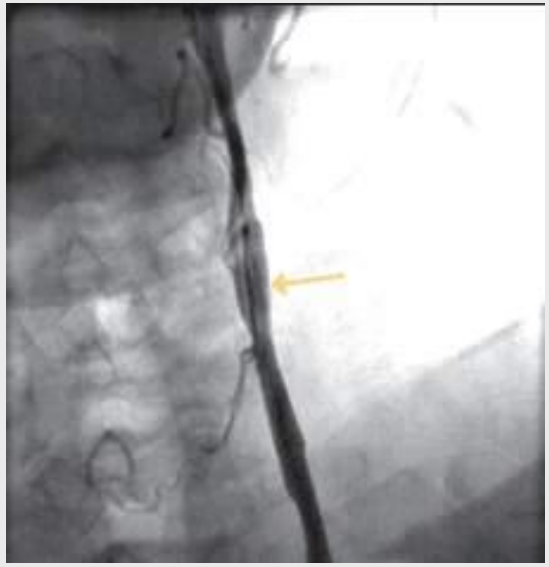


Dissection Stanford B

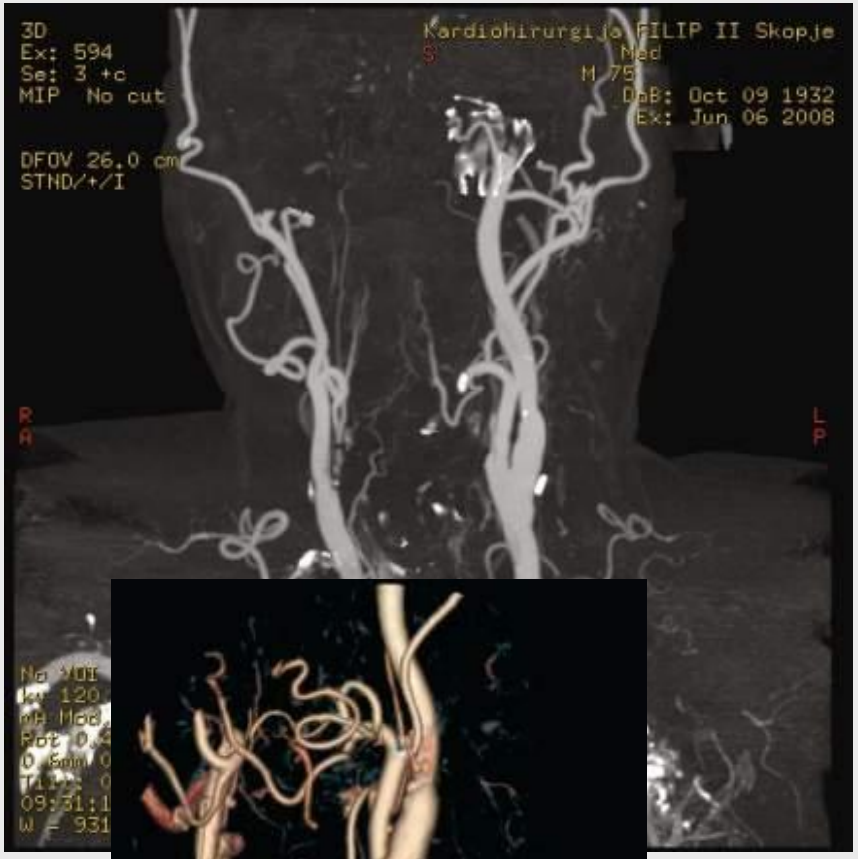


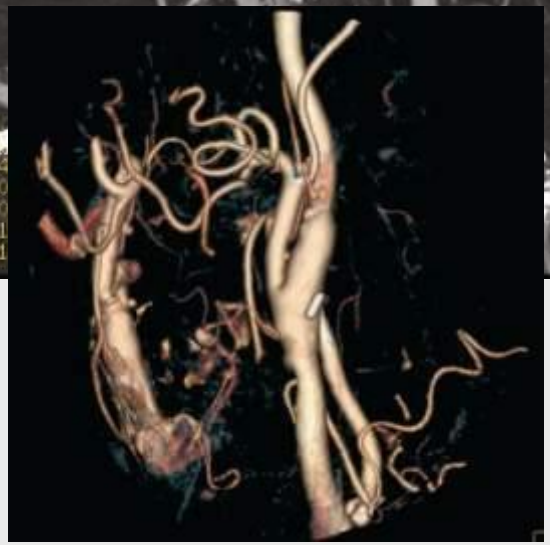

DFOV 33.5cm
STND/+A
R
A
L
P
No VOI
kv 120
mA 725
Rot 0.40s/HE+

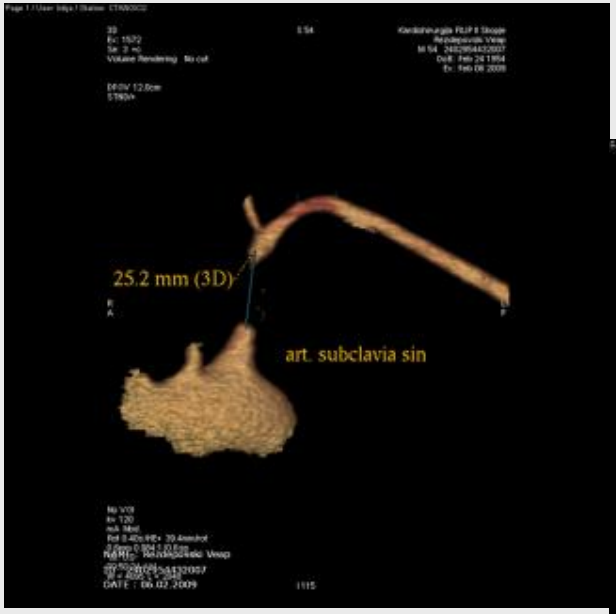
Carotid arteries



Carotid arteries



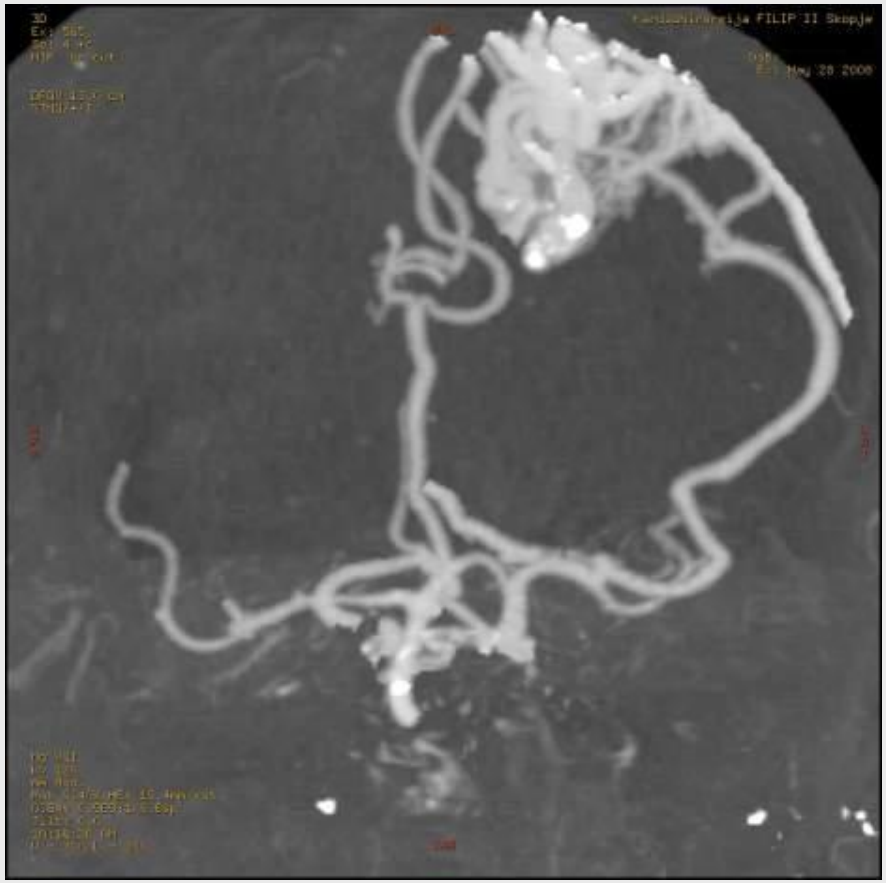


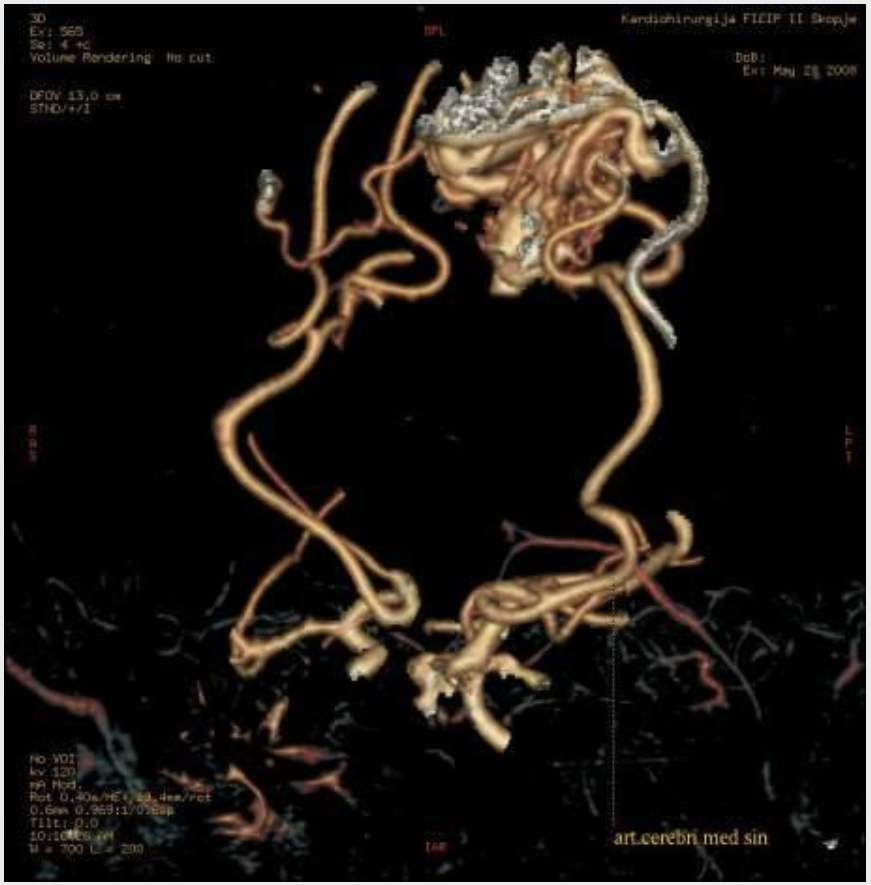

25.2 mm (3D)
art. subclavia sin


27.8 mm (3D)

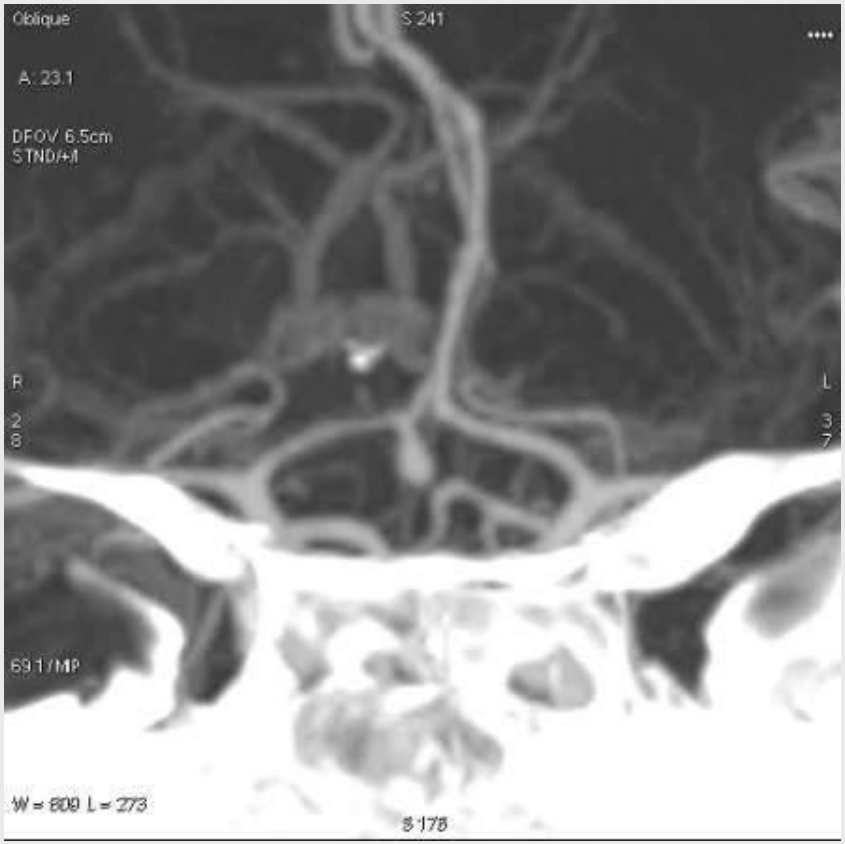

art. subclavia sin

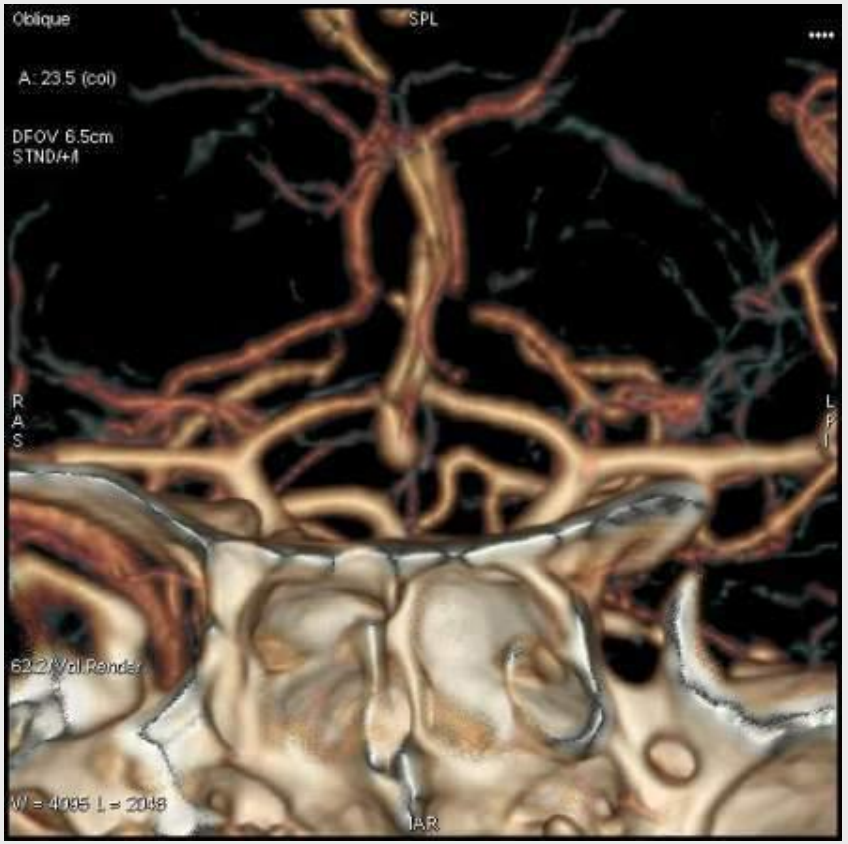
Intracranial vessels



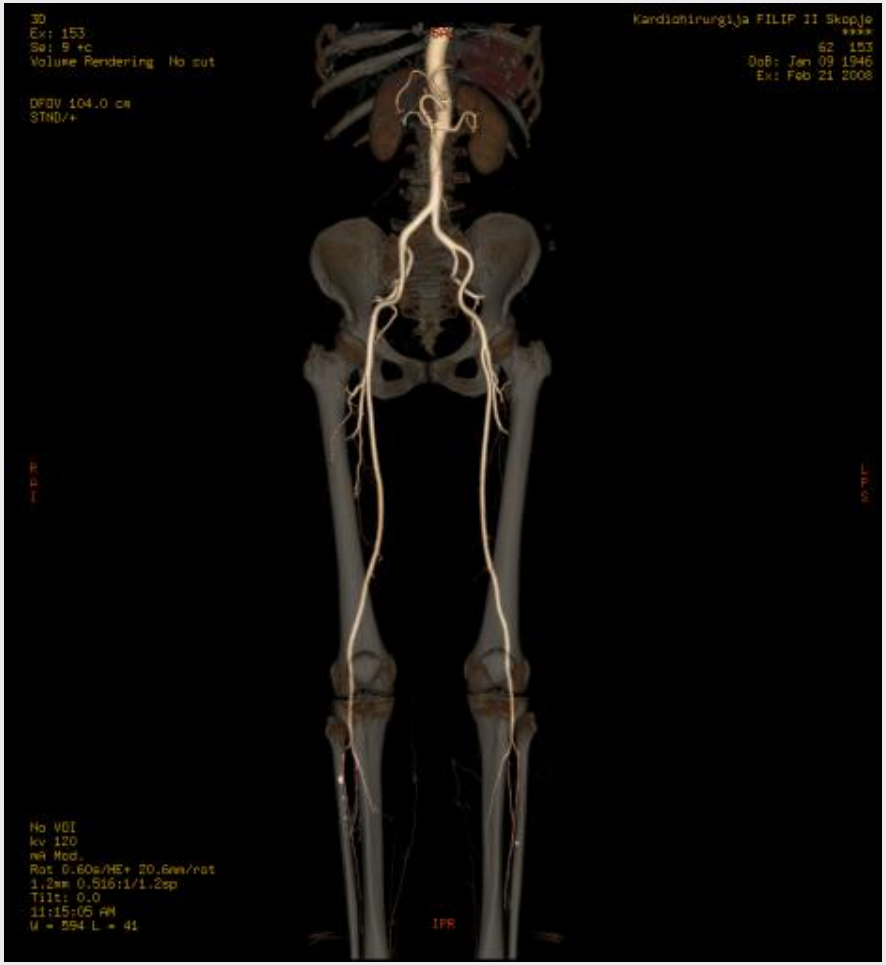


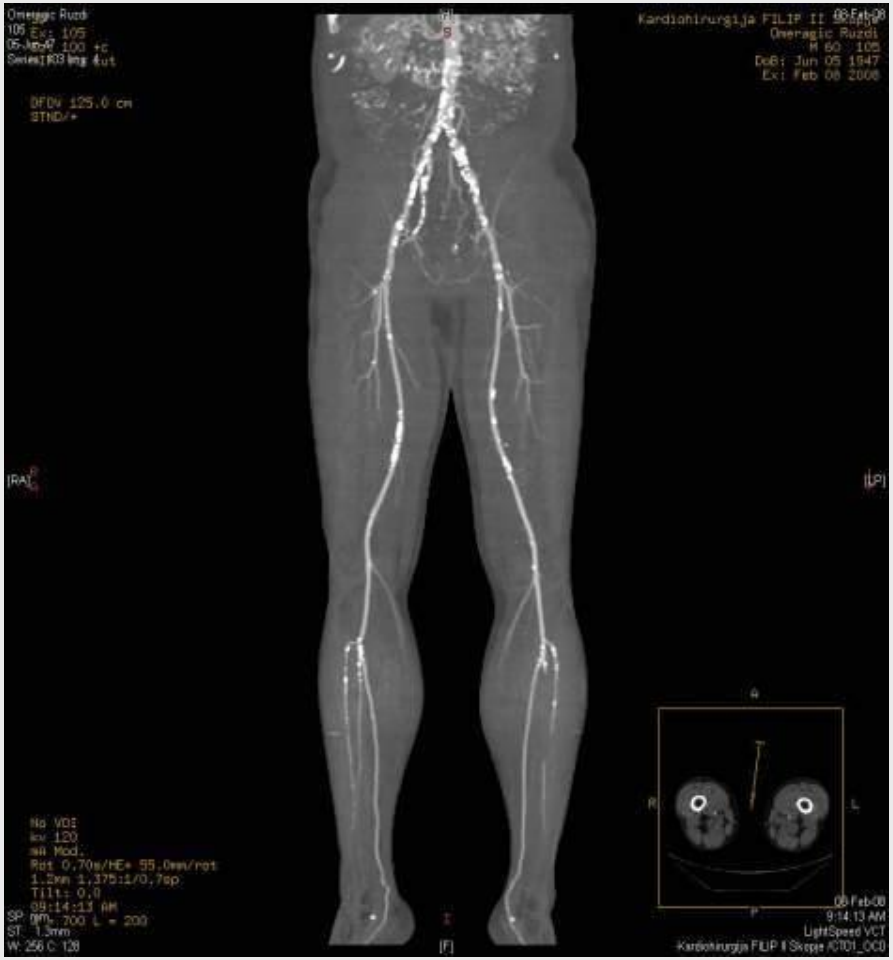
Intracranial vessels

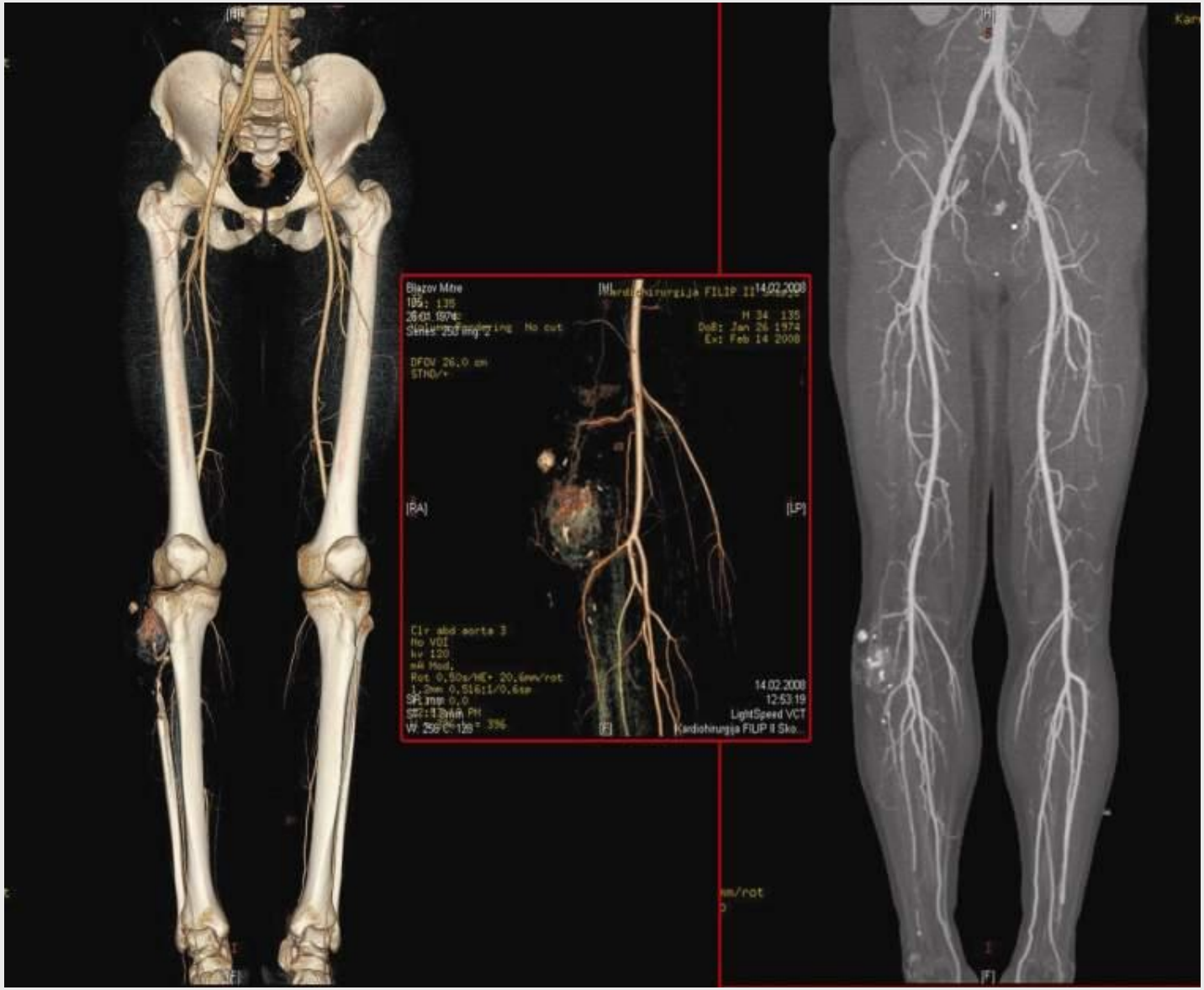


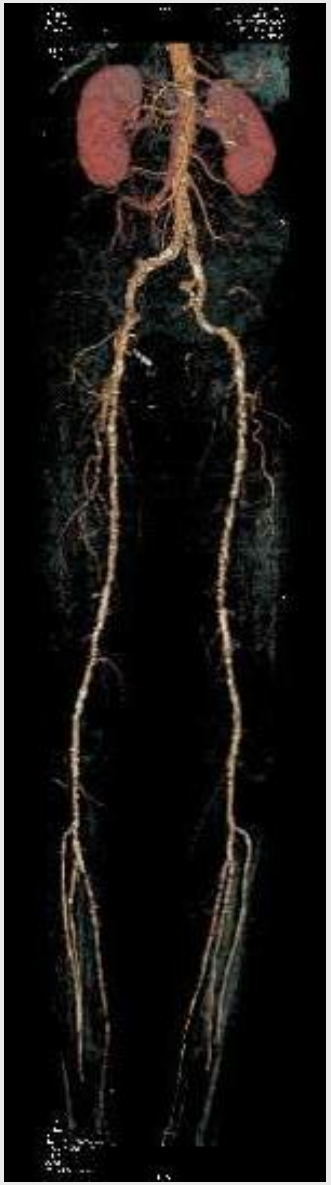


CT Angiography of the Lower Extremities

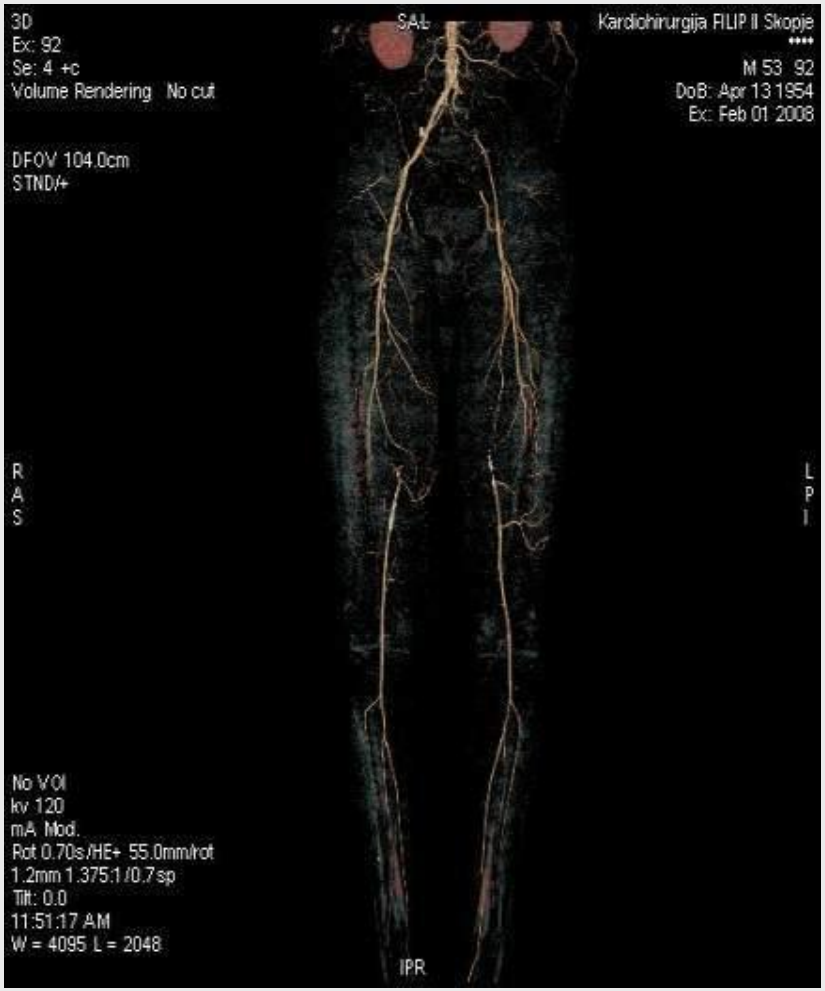


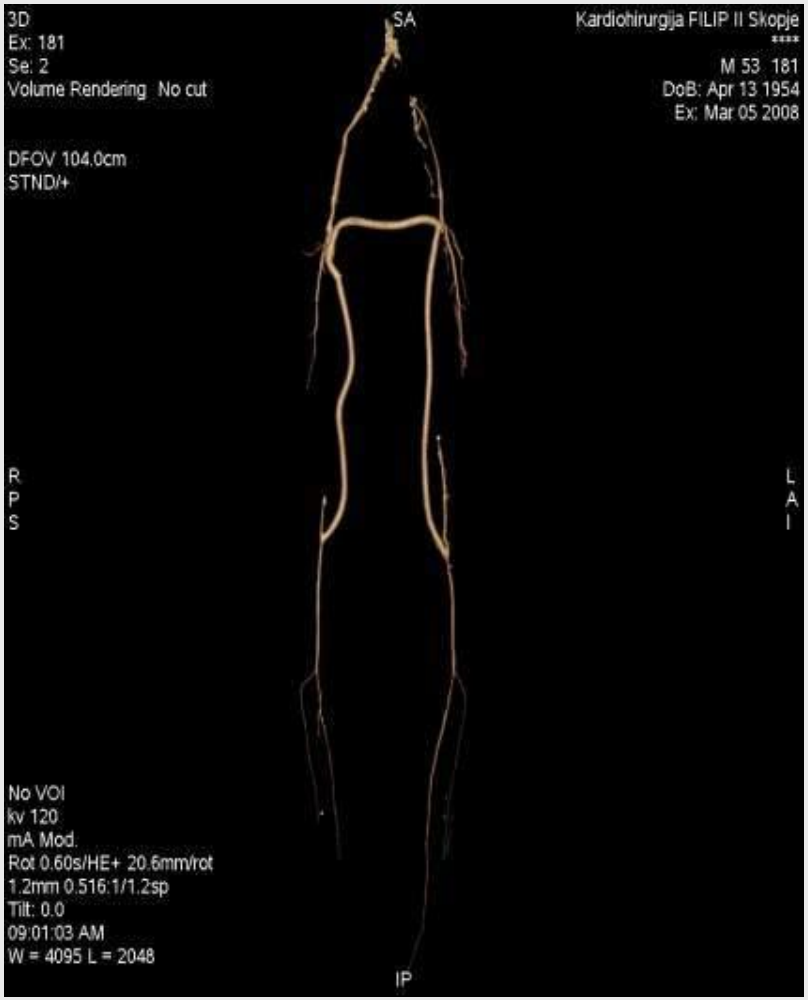



Blazov Mitre
DFOV 26.0 cm
STND/+
[RA]
[LP]
14.02.2008
12:53:19
LightSpeed VCT

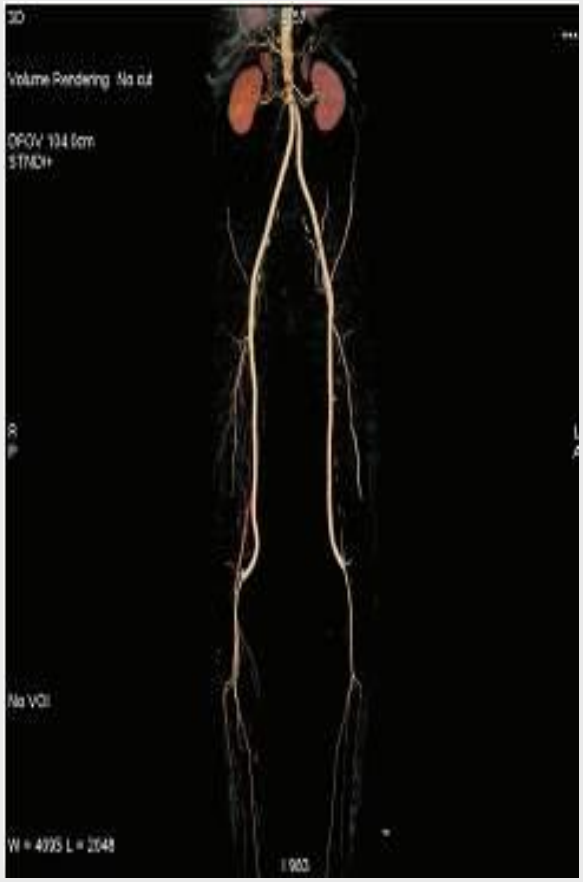


CT Angiography of the Lower Extremities



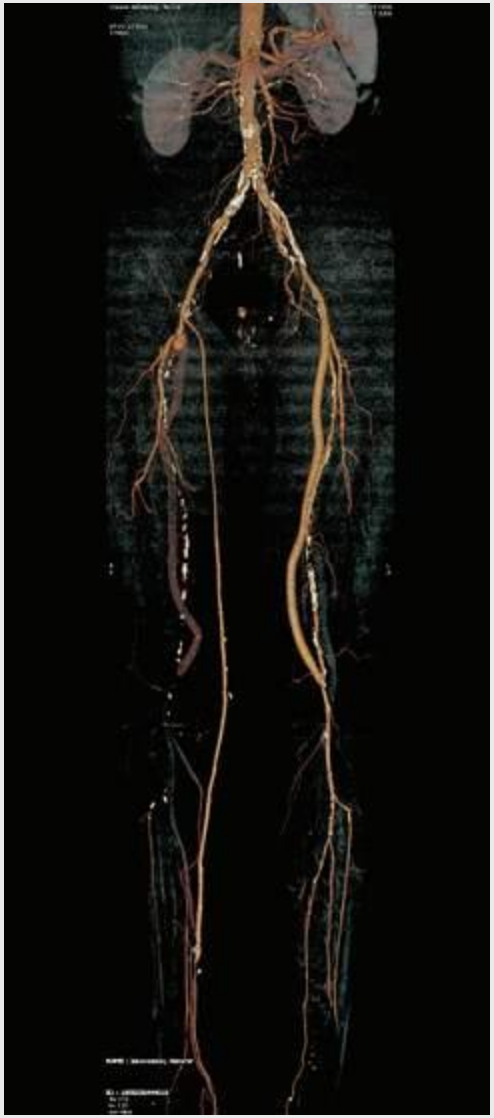


Syndrome Leriche

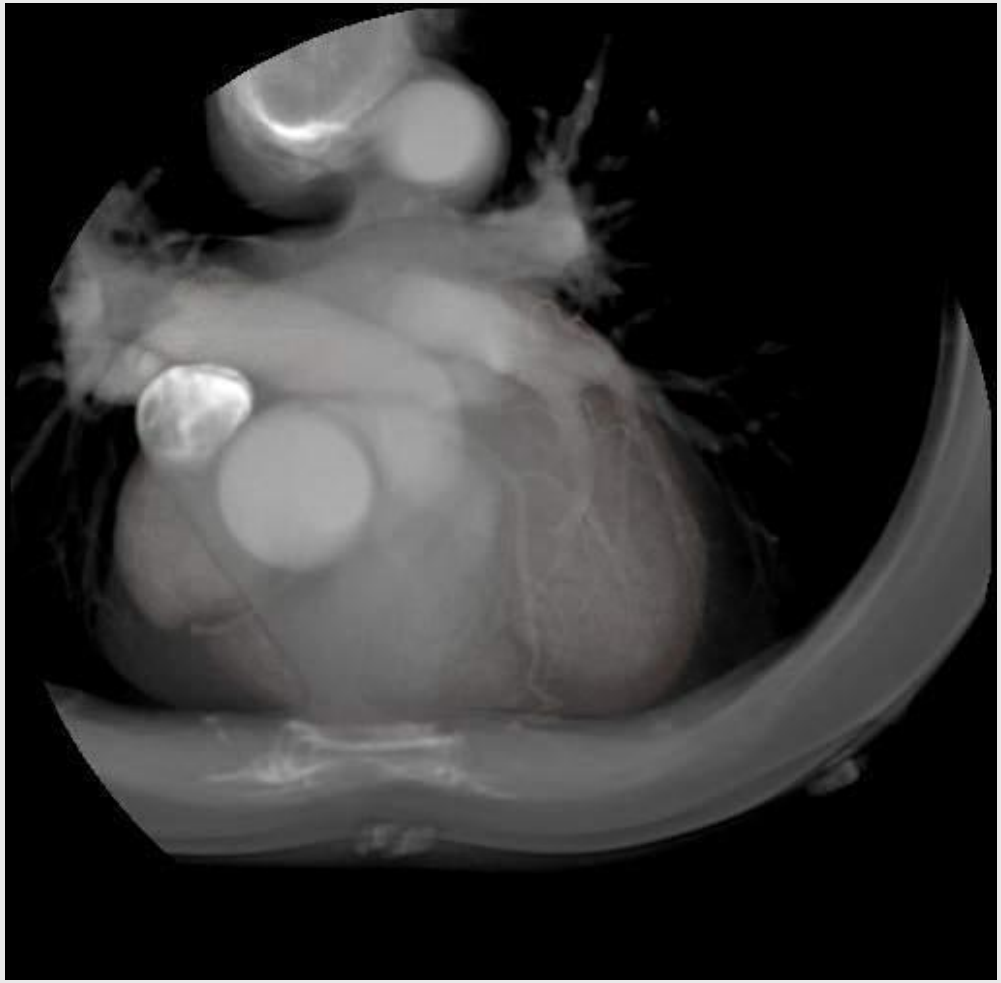



cut
v/rot


H
cut
rot
F



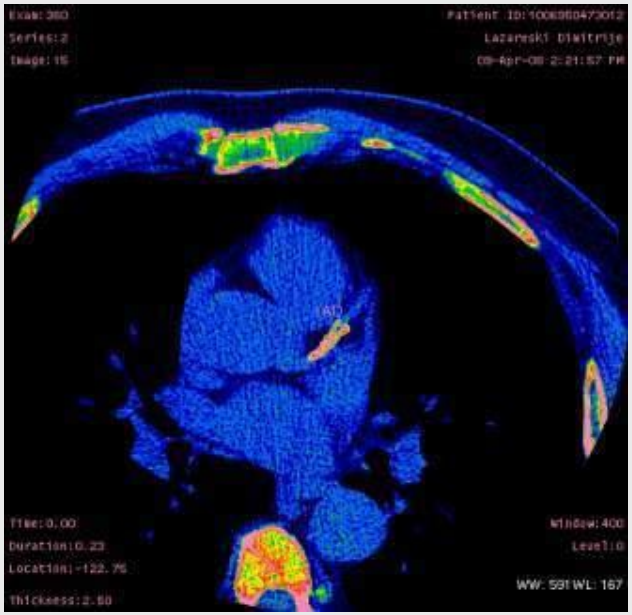
64 CARDIAC CT



64 CARDIAC CT - **Indications**

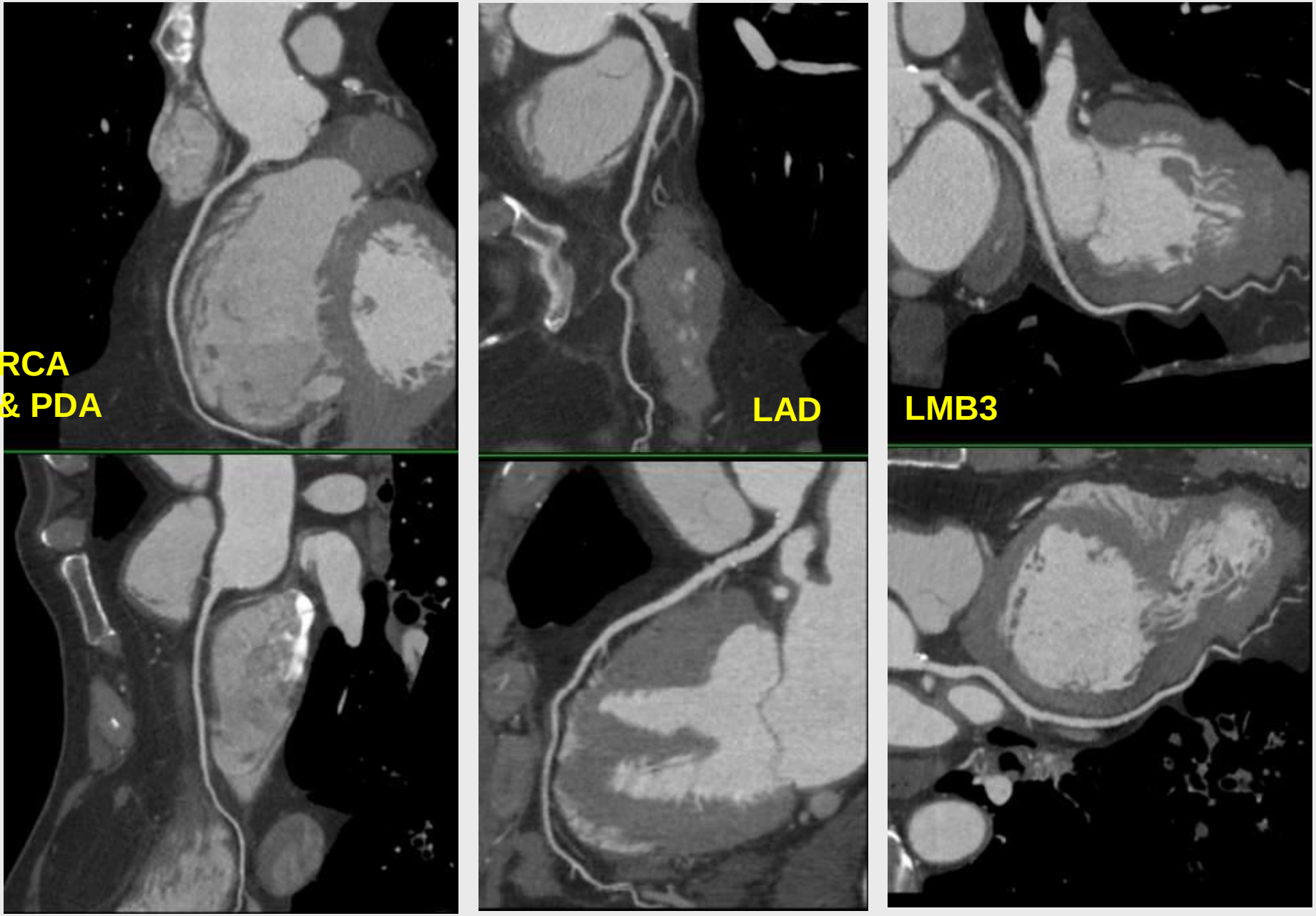
- Detection of CAD for a patient with atypical chest pain/angina
- Evaluation of suspected coronary anomalies before/after cath lab
- Coronary assessment before cardiac & vascular surgery
- Triple Rule Out (aortic dissection, PE, CAD)
- Stent & CABG follow-up


Axial2
Ex: 294
Se: 2
I: 141.5
Im: 18
DFOV 13.0cm
STND Ph:70% (No Filt.)
BPM:67
227ms
R
L
6
5
kv 120
mA 150
Rot 0.35s/Cl
2.5mm
Tilt: 0.0
10:34:45 AM
W = 664 L = 45
P 51

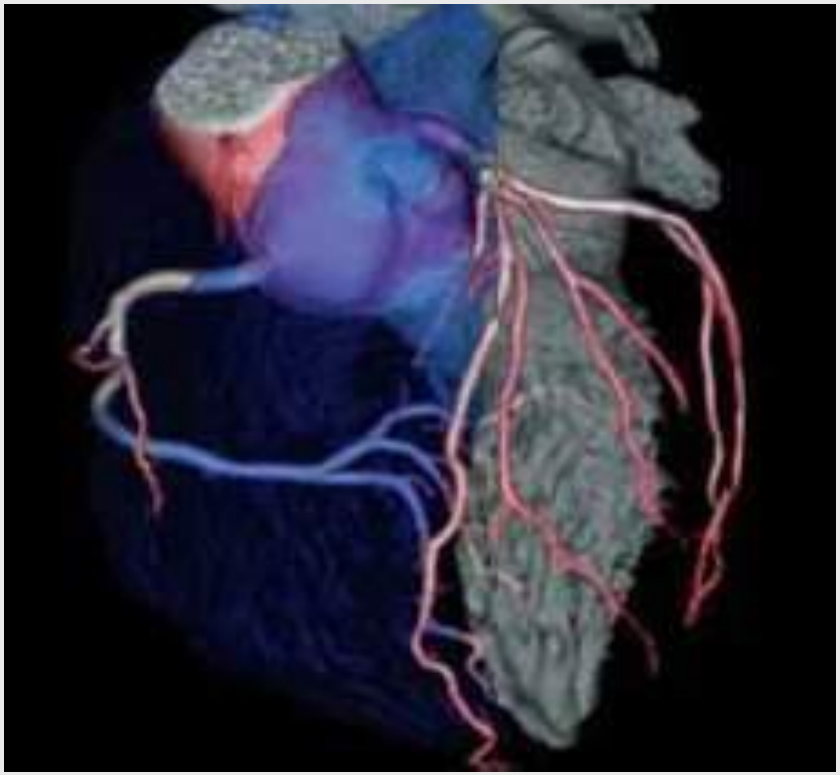

Exam: 380
Series: 2
Image: 15
Patient ID: 1006950473012
Lazarevski Dimitrije
09-Apr-08 2:21:57 PM
LAD
Time: 0.00
Duration: 0.23
Location: -122.75
Thickness: 2.50
Window: 400
Level: 0
WW: 591 WL: 167

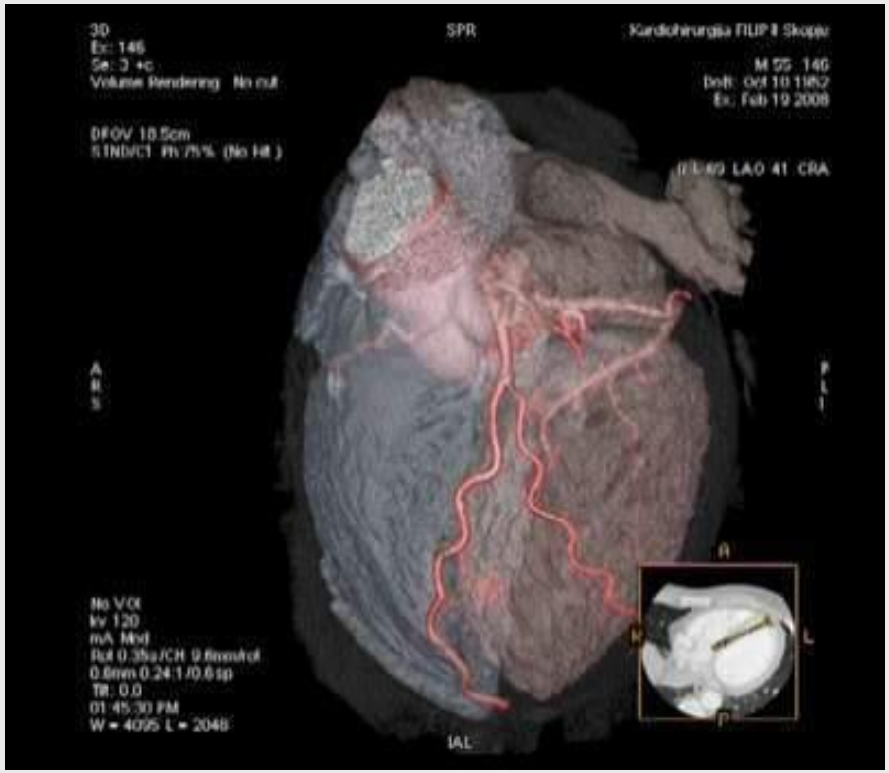

Curved
Ex: 118
Se: 102 +c
Right Coronary Artery Angle: 48.0
DFOV 9.5
DETAIL/CT Ph:75% (No Filt.)
S
R
L
I
kv 120
mA Mod
Rot 0.35s/CH 9.6mm/rot
0.6mm 0.24:1/0.6sp 0.5/MP
Tilt: 0.0
11:03:13 AM
W = 743 L = 247

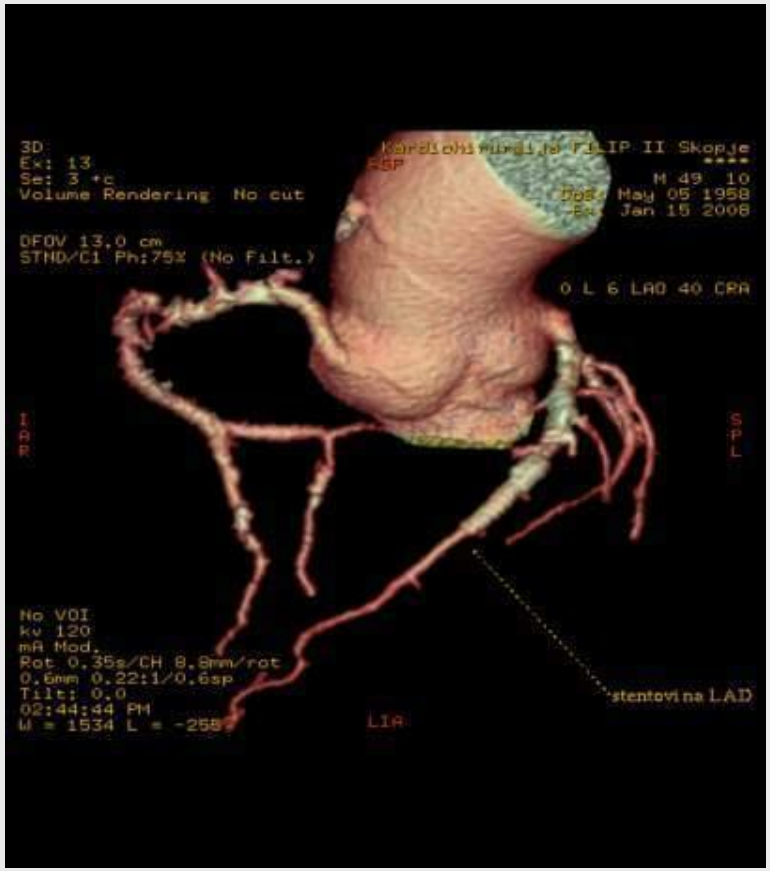

Exam: 380
Series: 2
Image: 15
Patient ID: 1006950473012
Lazarevski Dimitrije
09-Apr-08 2:21:57 PM
LAD
Time: 0.00
Duration: 0.23
Location: -122.75
Thickness: 2.50
Window: 400
Level: 0
WW: 591 WL: 167

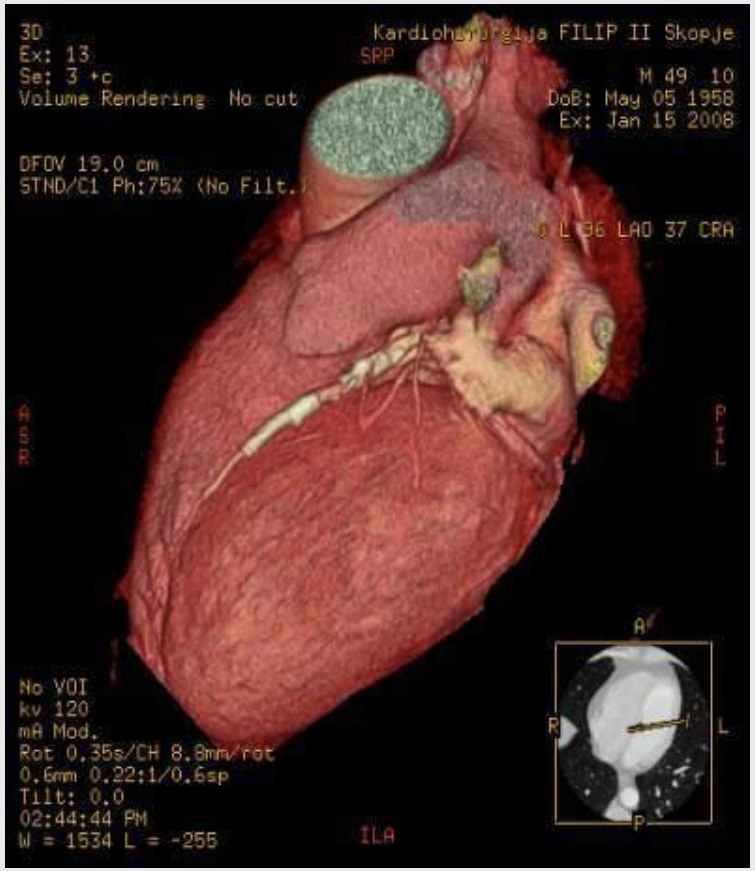

RCA
& PDA
LAD
LMB3

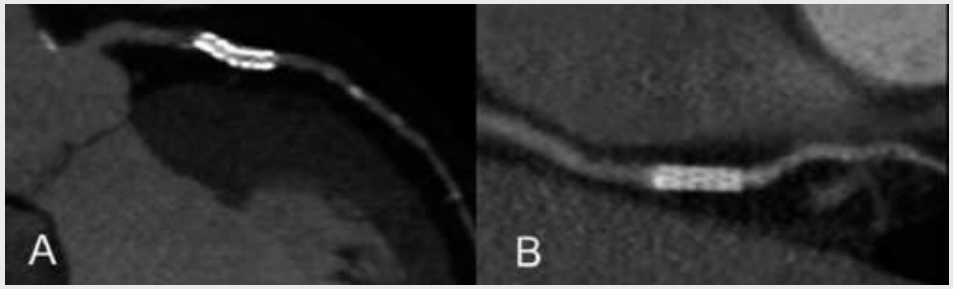
Cardiac Transparency



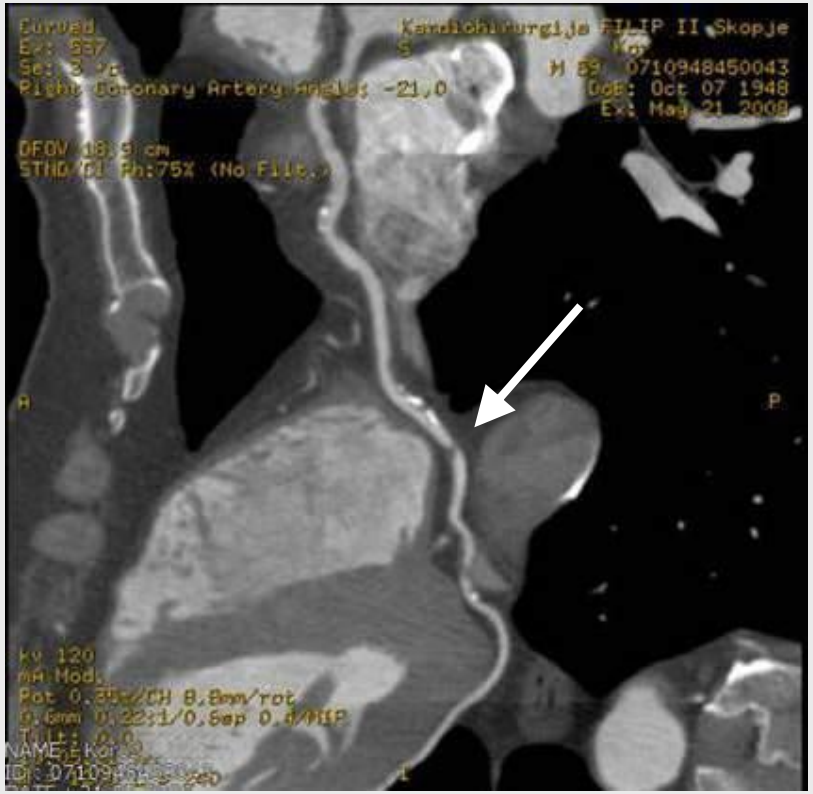


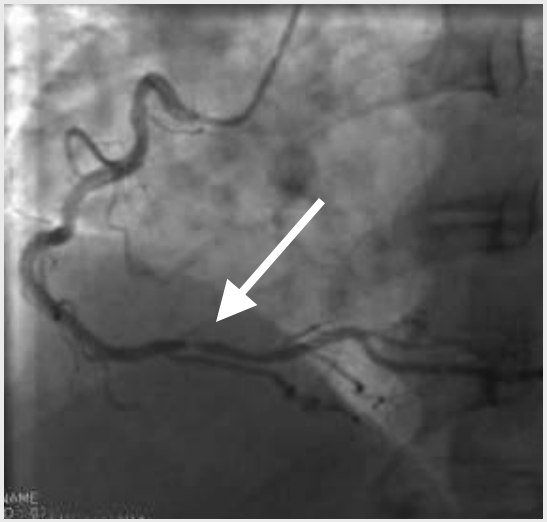

3D
Ex: 13
Se: 3 +c
Volume Rendering No cut
DFOV 13.0 cm
STND/C1 Ph:75% (No Filt.)
0 L 6 LAO 40 CRA
No VOI
kv 120
mA Mod.
Rot 0.35s/CH 8.8mm/rot
0.6mm 0.22:1/0.6sp
Tilt: 0.0
02:44:44 PM
W = 1534 L = -258
stentovi na LAD
LIA

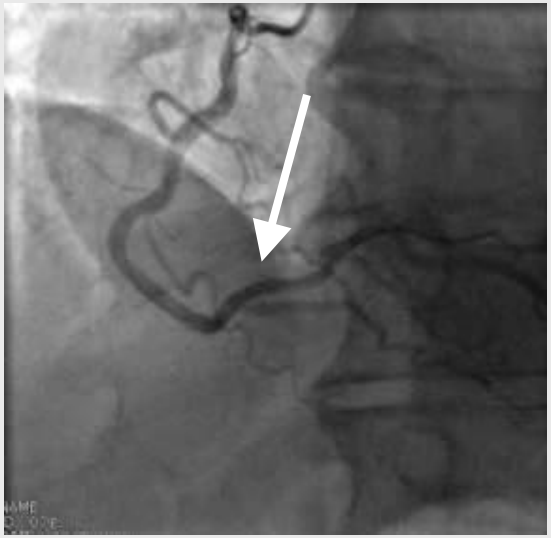

3D
Ex: 13
Se: 3 +c
Volume Rendering No cut
DFOV 19.0 cm
STND/C1 Ph:75% (No Filt.)
M 49 10
DoB: May 05 1958
Ex: Jan 15 2008
0 L 36 LAO 37 CRA
No VOI
kv 120
mA Mod.
Rot 0.35s/CH 8.8mm/rot
0.6mm 0.22:1/0.6sp
Tilt: 0.0
02:44:44 PM
W = 1534 L = -255
ILA


A
B

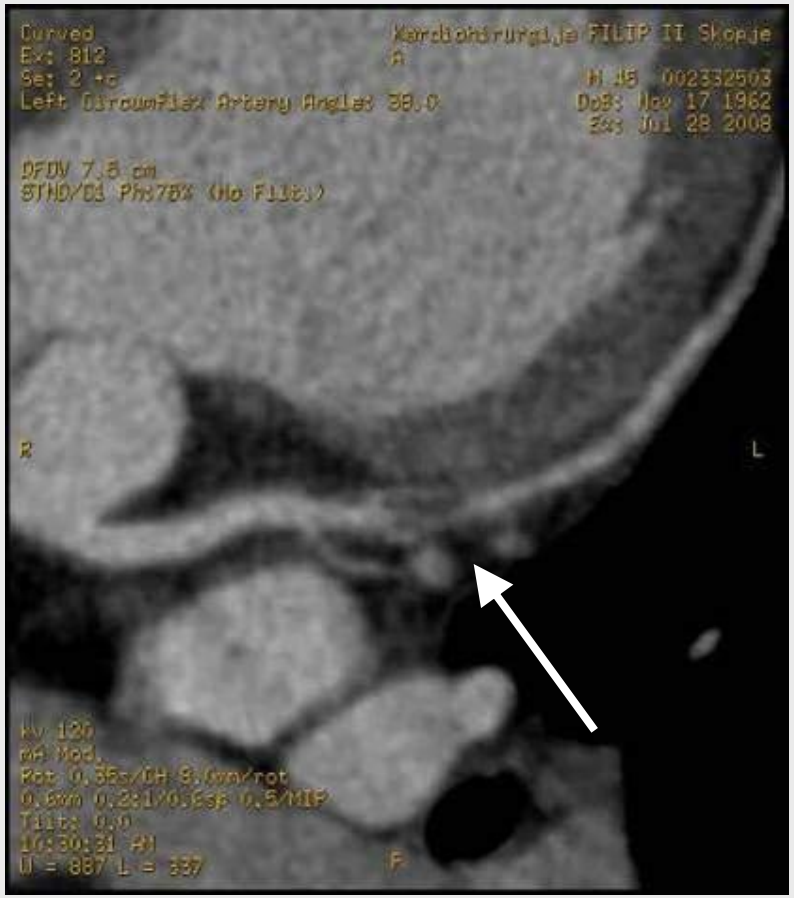
Stent RCA

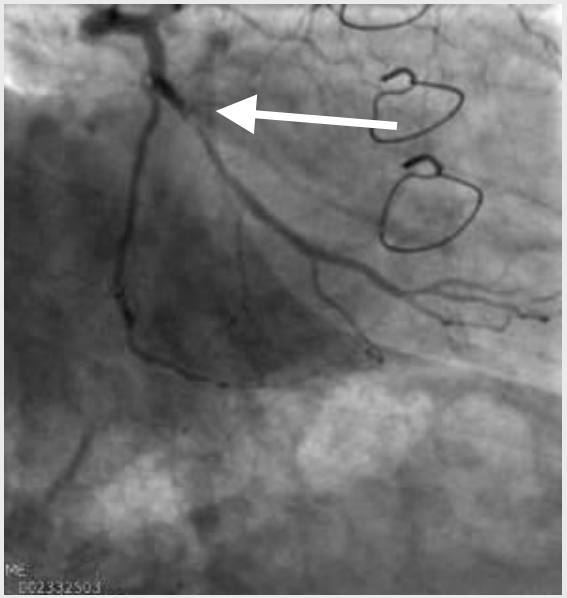

Curved
Kardiohirurgija FILIP II Skopje
Right Coronary Artery Angle: -21.0
DOB: Oct 07 1948
Ex: May 21 2008
DFOV 18.9 cm
STND/CI Rh:75% (No Filt.)
A
P
kV 120
mA Mod.

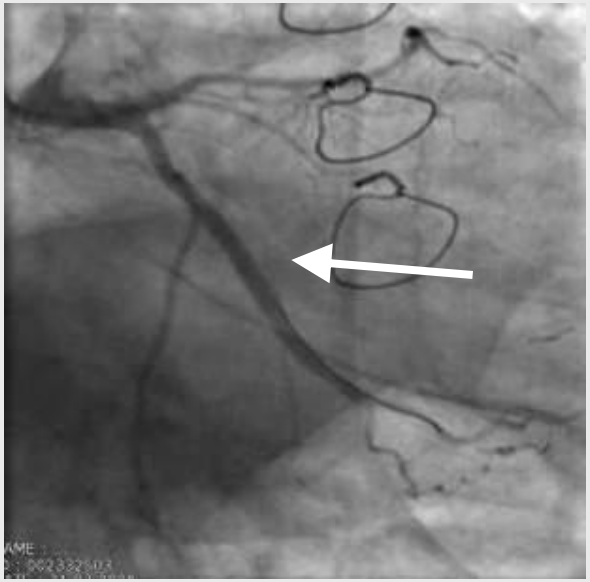




Stent Lcx

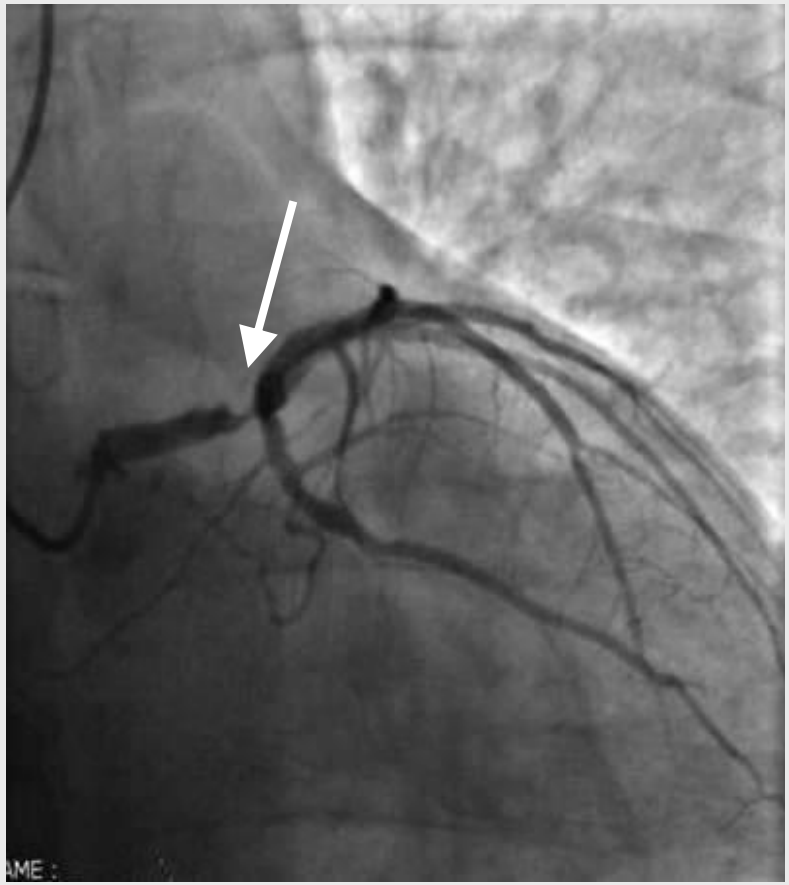

Curved
Ex: 812
Se: 2 +c
Left Circumflex Artery Angle: 38.0
Kardiohirurgija FILIP II Skopje
A
H 45 002332503
DoB: Nov 17 1962
Ex: Jul 28 2008
DFOV 7.5 cm
STND/D1 Ph:75% (No Filt:)
R
L
kV 120
mA Mod.
Rot 0.35s/CH 8.0mm/rot
0.6mm 0.23i/0.6sp 0.5/MIP
Tilt: 0.0
10:30:31 AM
U = 887 L = 337
F





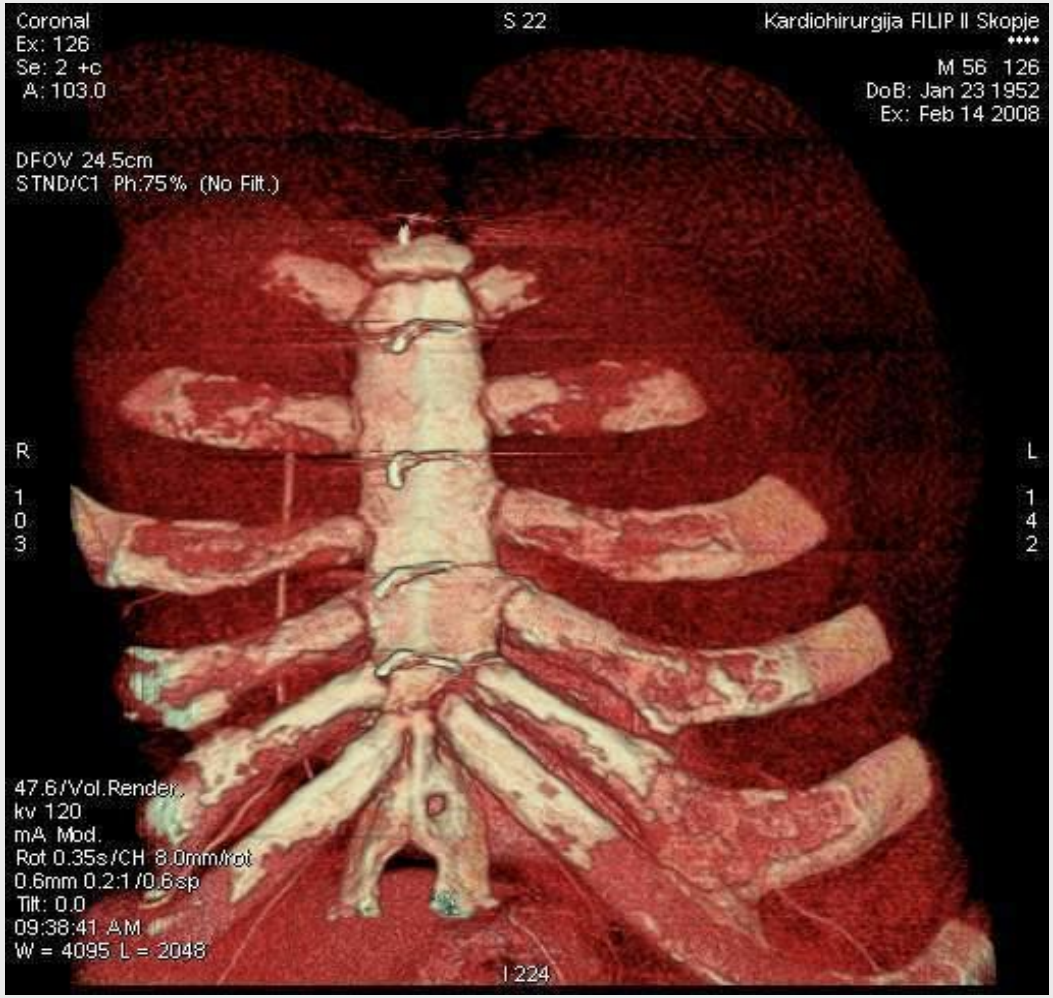
LMN


Curved phase 40%
Ex: 1044
Se: 503 rc
Left CircumFlex Artery Angle: -47.0
Kardiohirurgija FILIP II Skopje
M 39
DoB: Jun 16 1969
Ex: Oct 13 2008
DFOV 7.3 cm
STND/CI Ph:40% (No Filt.)
R
L
kV 140
mA Mod.
Rot 0.35s/CH 8.8mm/rot
0.5mm 0.22:1/0.8sp 0.5/MIP
I

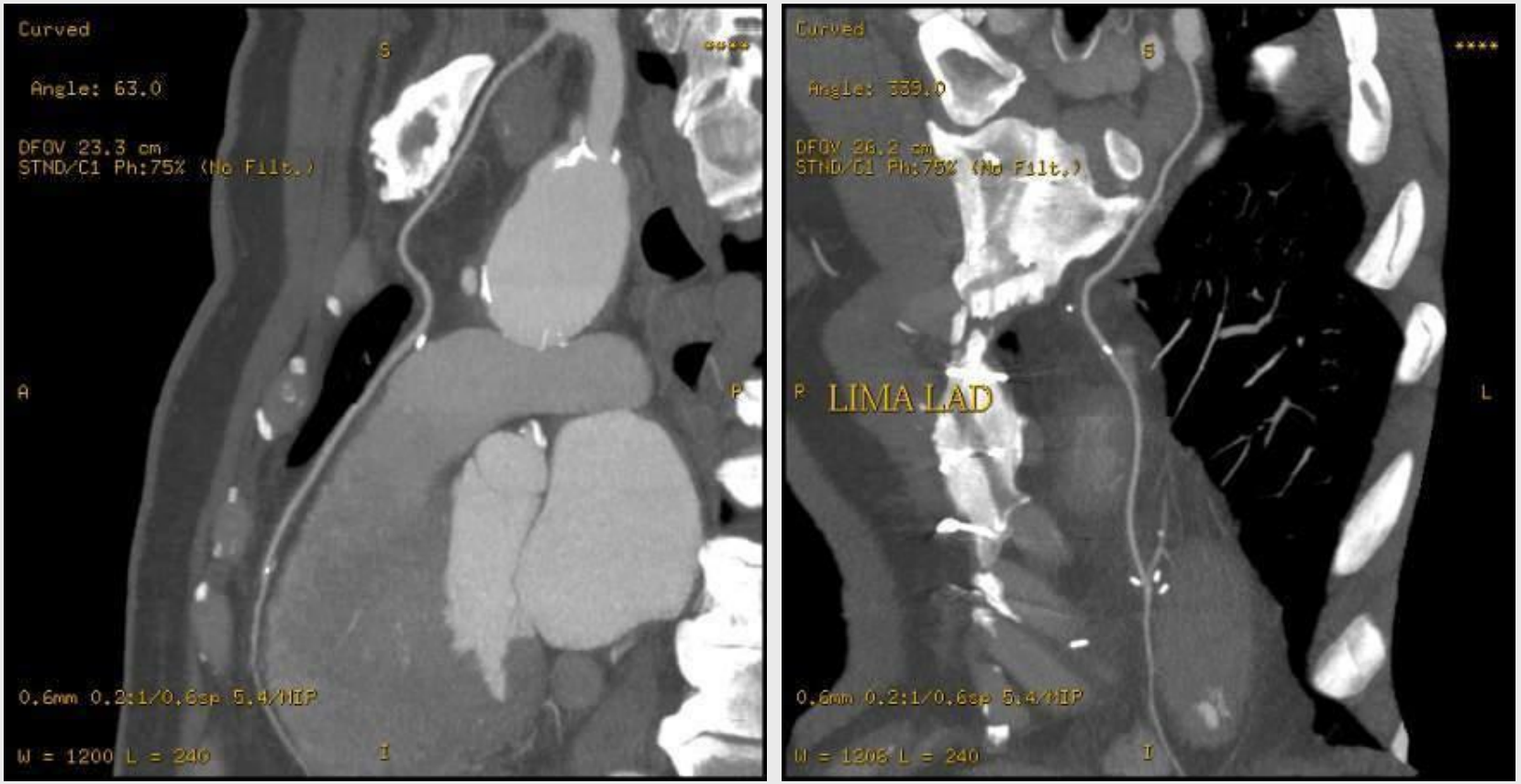


Distal PLB occlusion + Infero basal aneurysm

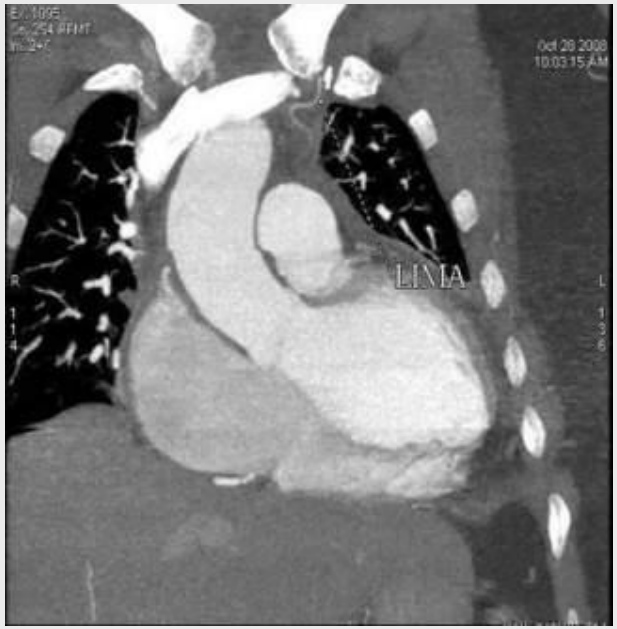
CT angiography is a non invasive alternative to Cath Lab in CABG follow up



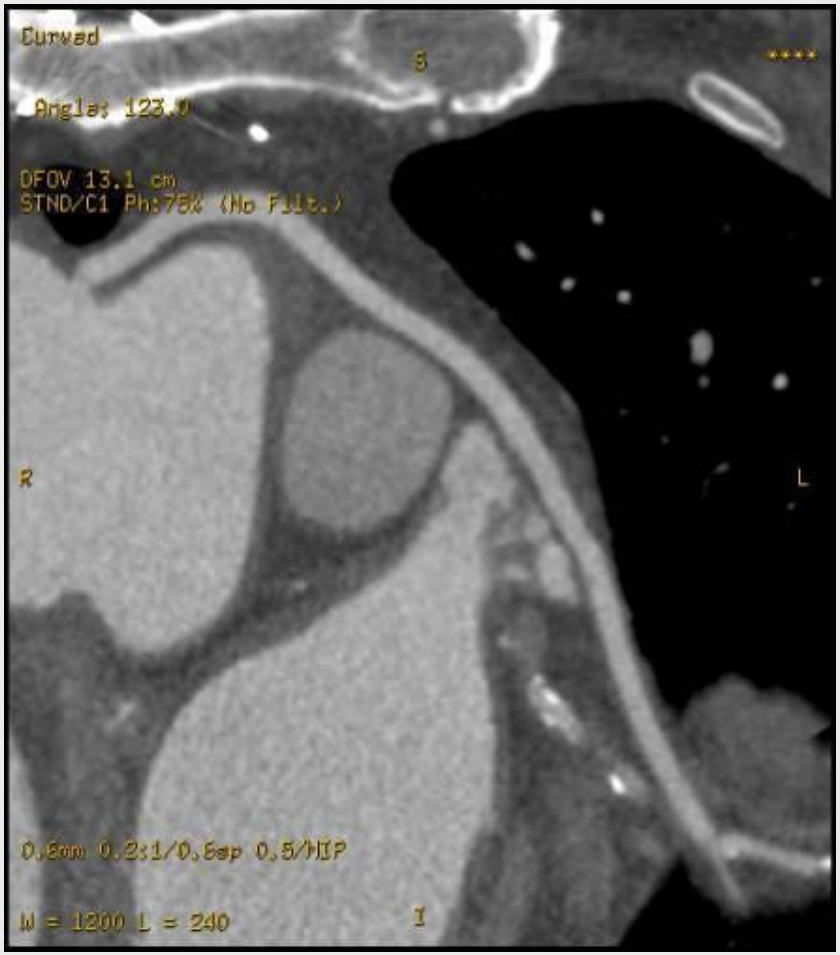
Arterial bypass

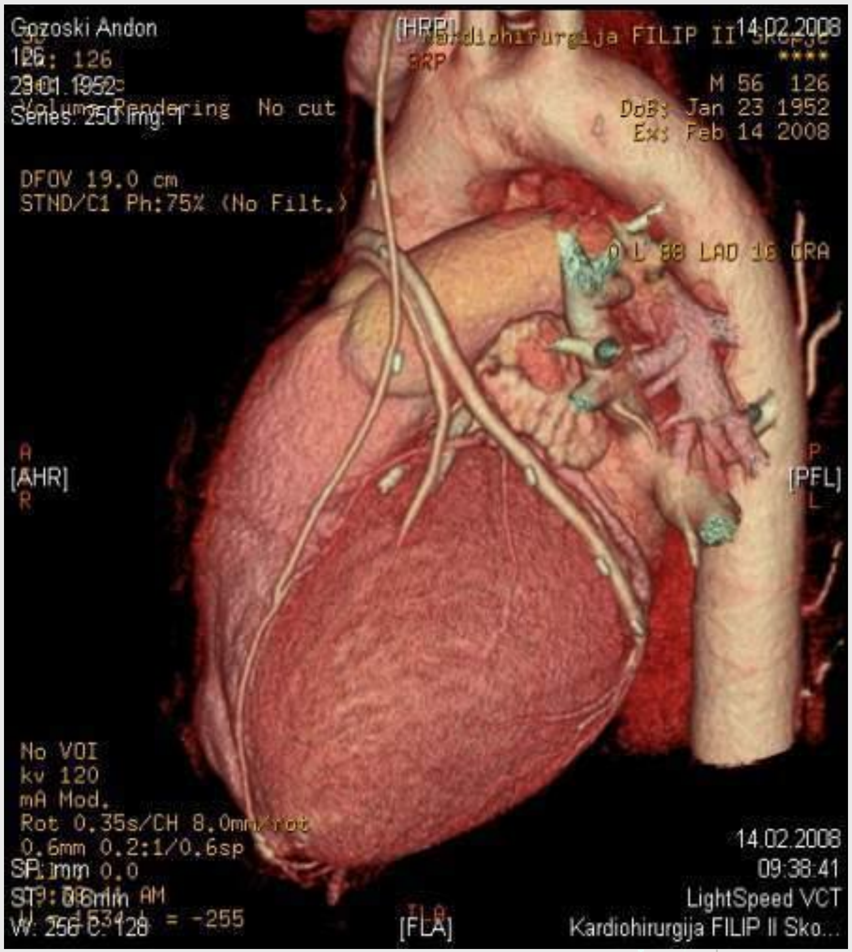


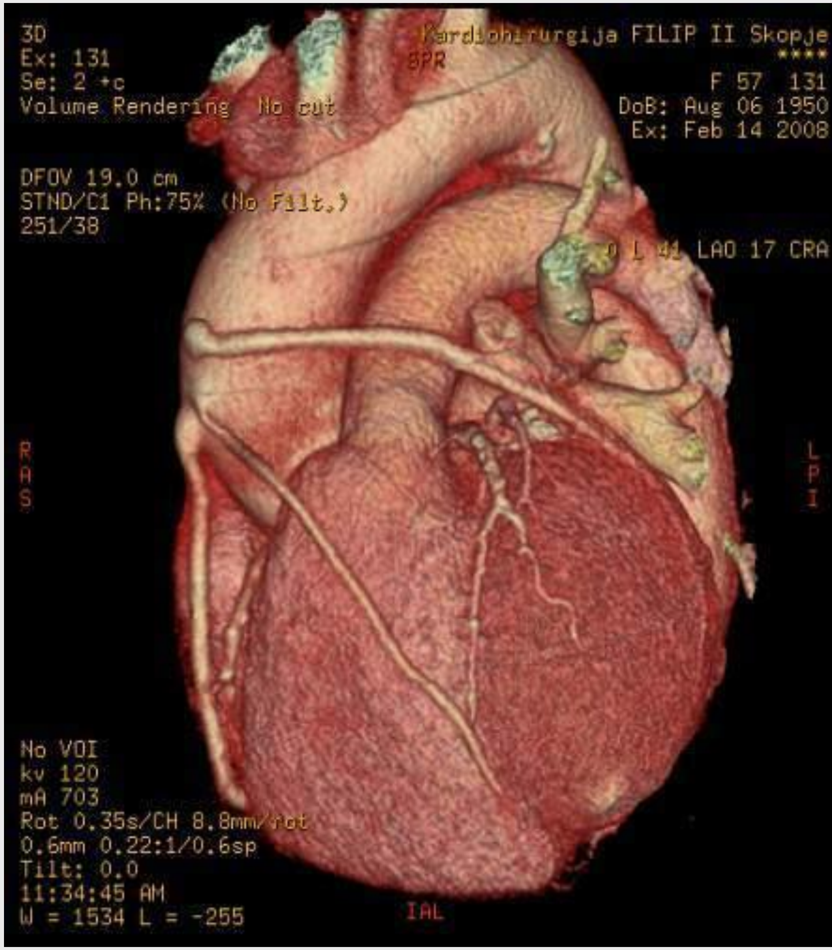
Arterial bypass

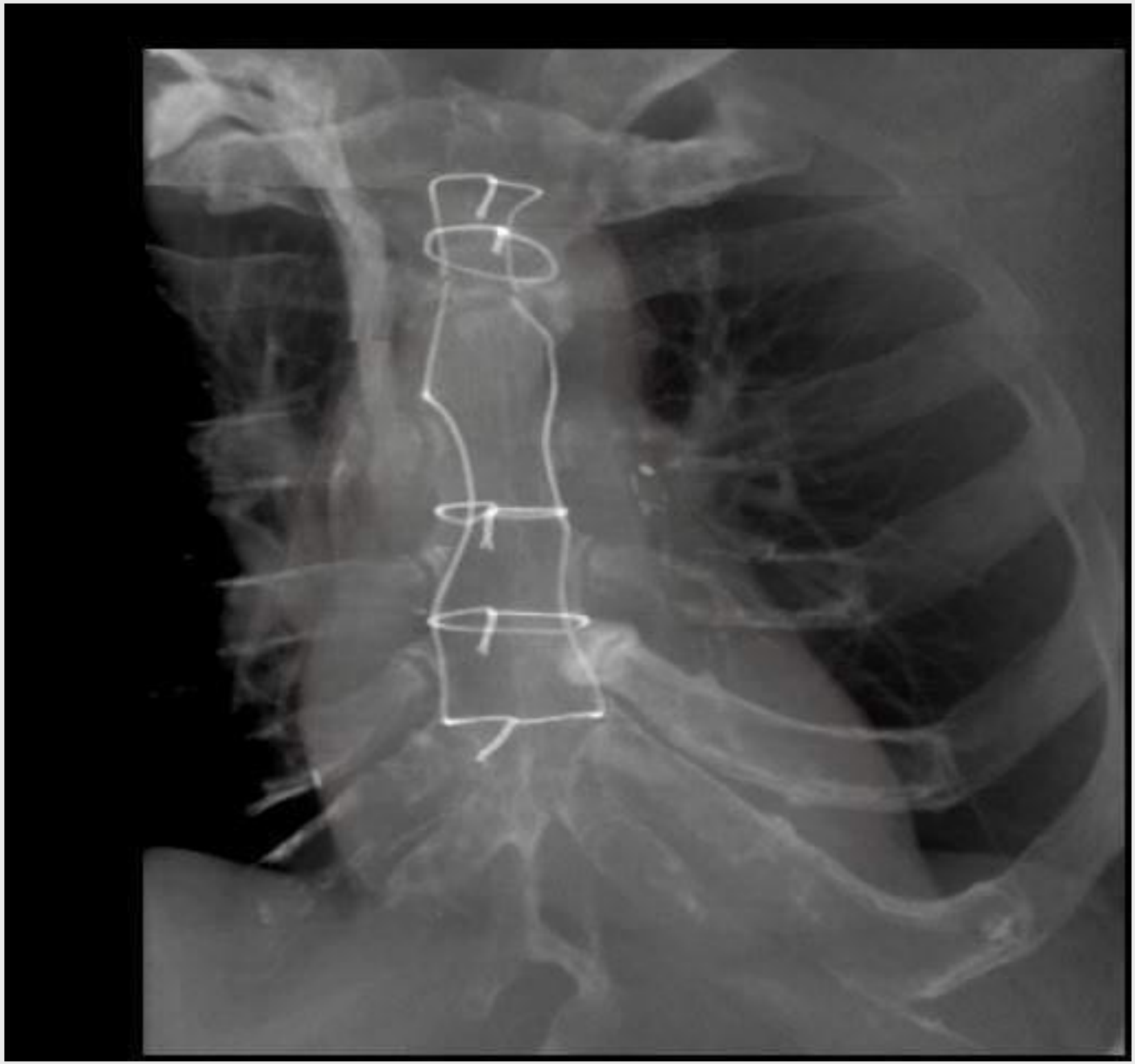


Venous bypass




Kardiohirurgija FILIP II Skopje
M 56 126
DoB: Jan 23 1952
Ex: Feb 14 2008
Volume Rendering No cut
DFOV 19.0 cm
STND/C1 Ph:75% (No Filt.)
[AHR]
[PFL]
No VOI
kv 120
mA Mod.
Rot 0.35s/CH 8.0mm/rot
0.6mm 0.2:1/0.6sp
14.02.2008
09:38:41
LightSpeed VCT
Kardiohirurgija FILIP II Sko...
[FLA]

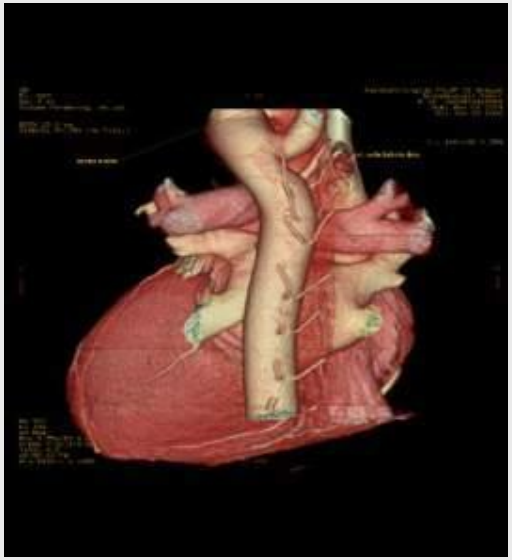

3D
Ex: 131
Se: 2 +c
Volume Rendering No cut
Kardiohirurgija FILIP II Skopje
F 57 131
DoB: Aug 06 1950
Ex: Feb 14 2008
DFOV 19.0 cm
STND/C1 Ph:75% (No Filt.)
251/38
LAO 17 CRA
No VOI
kv 120
mA 703
Rot 0.35s/CH 8.8mm/rot
0.6mm 0.22:1/0.6sp
Tilt: 0.0
11:34:45 AM
W = 1534 L = -255
IAL

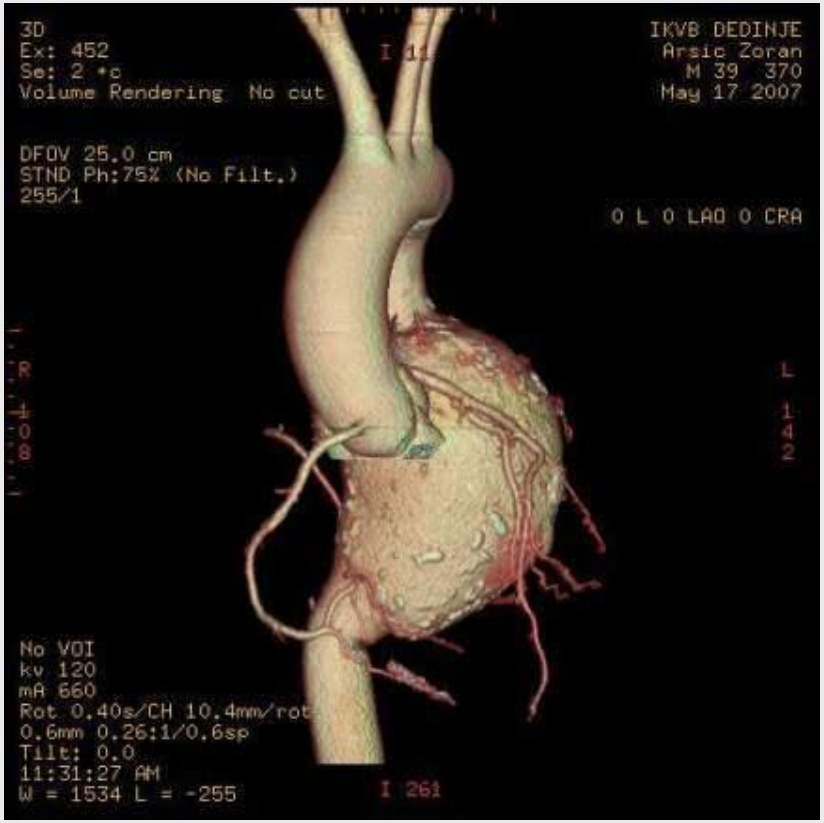


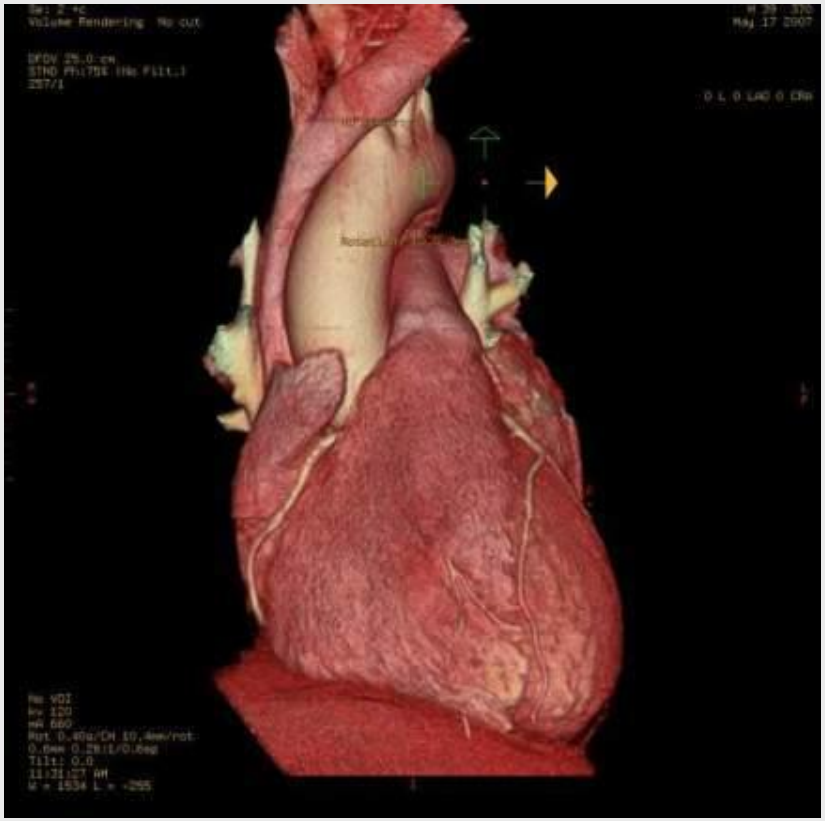
64 CARDIAC CT

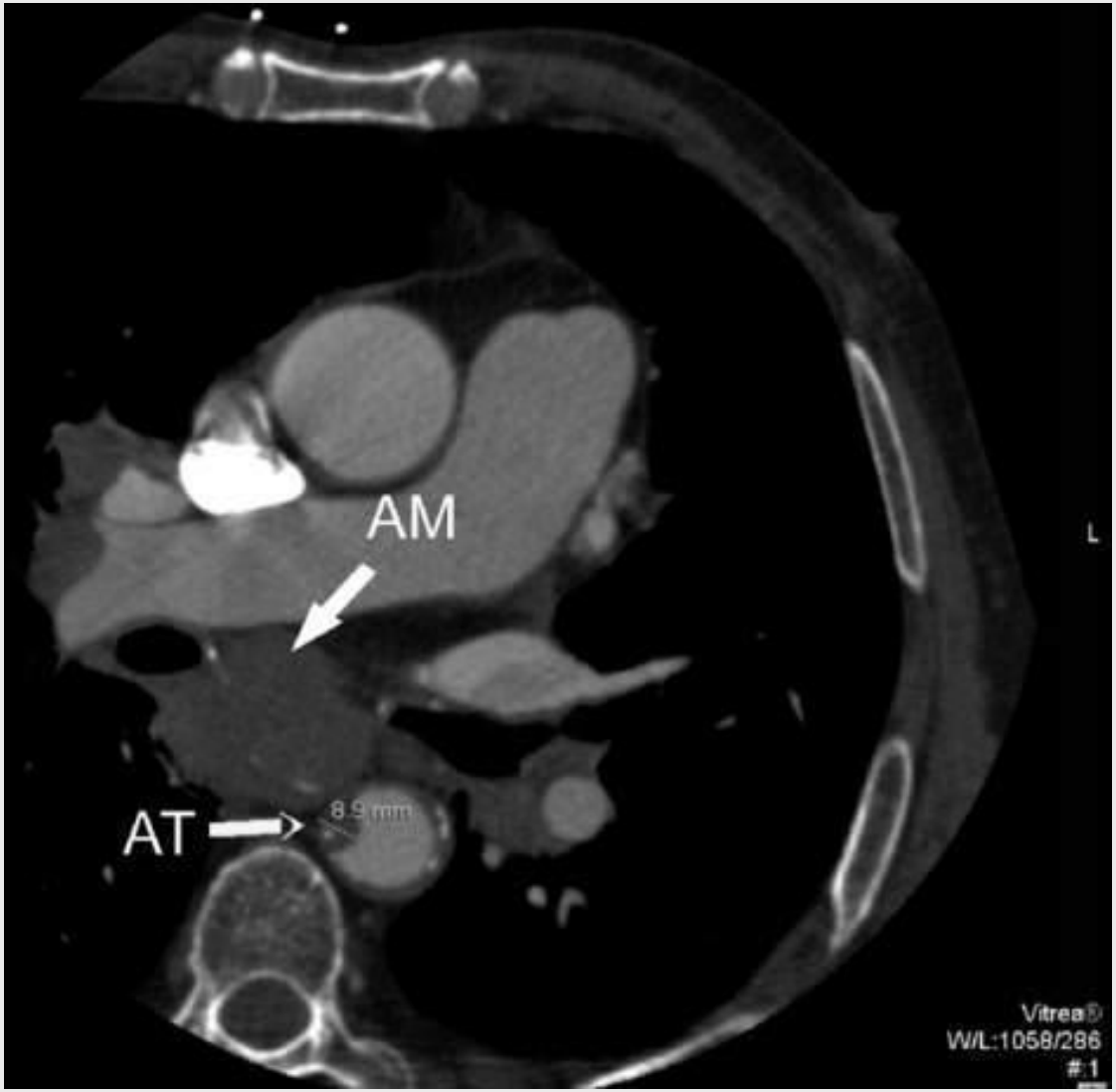
Causes of failure:

- Heart rate > 70bpm
- High Arrhythmia
- Patient cooperation (breathing)
- High level of calcium scoring
- Careful with:
  - Renal insufficiency
  - Hyperthireosis




3D
Ex: 452
Se: 2 *c
Volume Rendering No cut
IKVB DEDINJE
Arsic Zoran
M 39 370
May 17 2007
DFOV 25.0 cm
STND Ph:75% (No Filt.)
255/1
0 L 0 LAO 0 CRA
No VOI
kv 120
mA 660
Rot 0.40s/CH 10.4mm/rot
0.6mm 0.26:1/0.6sp
Tilt: 0.0
11:31:27 AM
W = 1534 L = -255
I 261



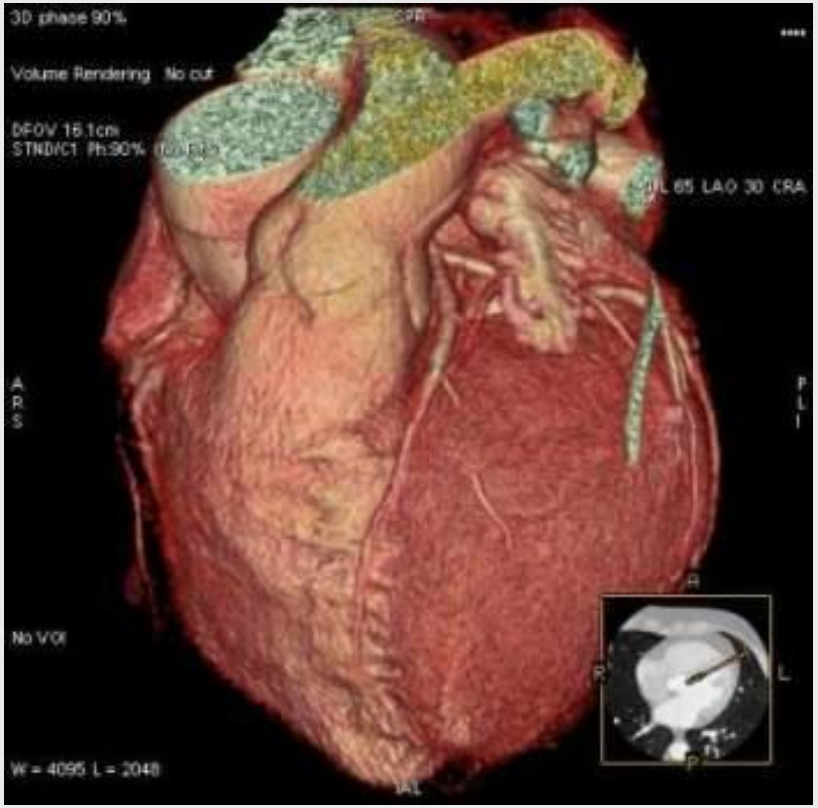

AM
AT
8.9 mm
L
Vitrea
W/L:1058/286
#:1

Conclusion

CT Angiography:

Compared to catheter angiography more patient-friendly procedure.

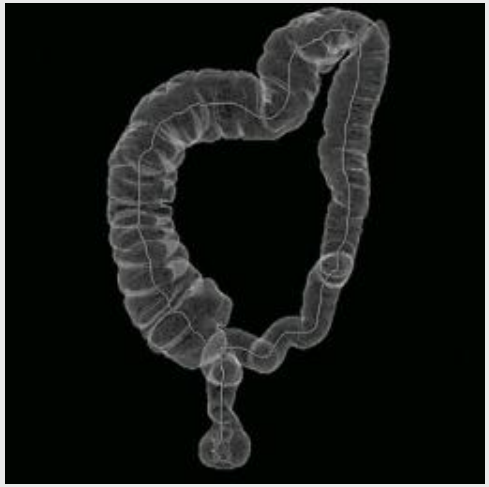
Decrease the number of diagnostic angiographies

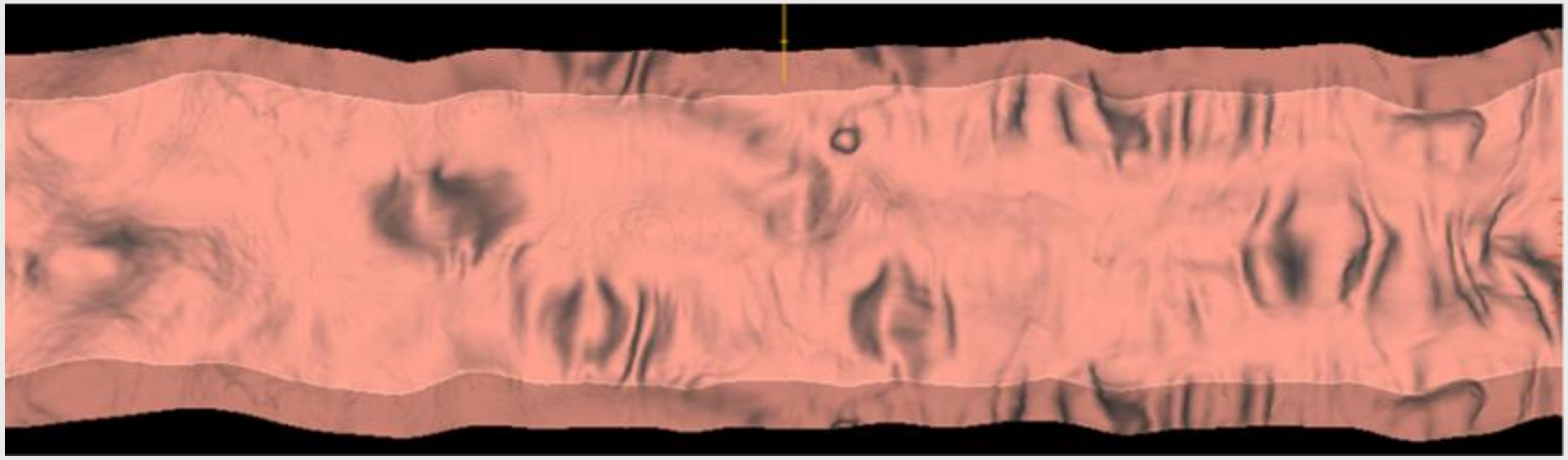


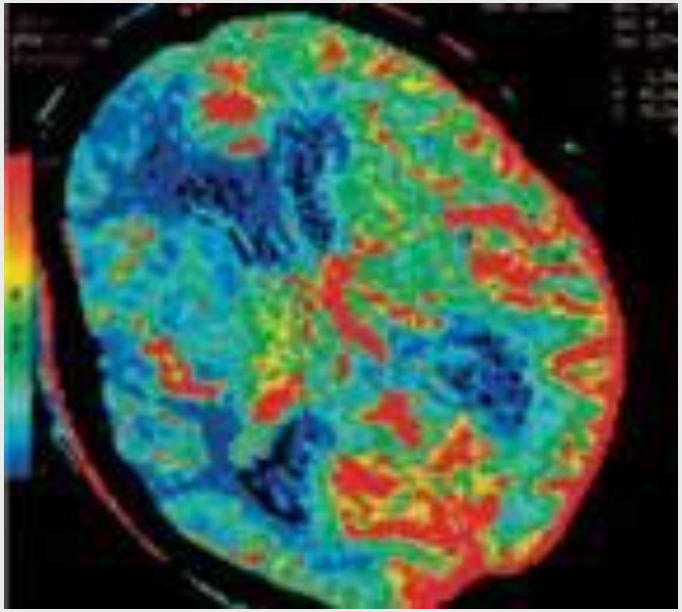
CT Examinations for 14 months

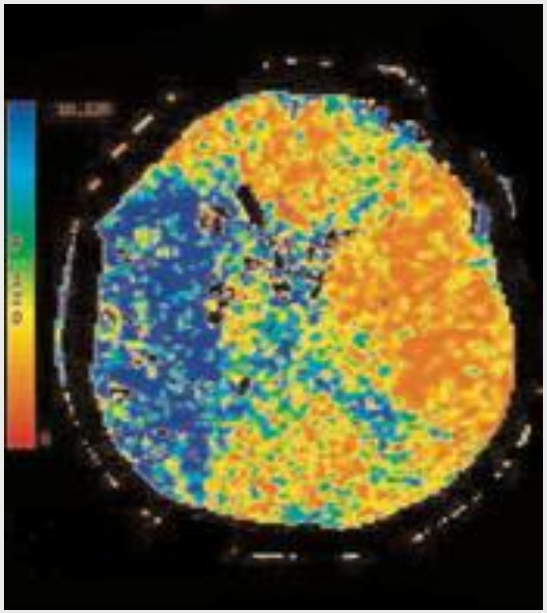
Cardiac CT	513
Calcium scoring	182
CT Angiography of the Lower Extremities	267
Abdomen	141
Carotide	303
Aorta	155
Thorax	118
Cerebral angiography	93
Head	12
Neck	6
Spine	5
Virtual colonoscopy	5
CT Angiography of the Upper Extremities	4
TOTAL	1804

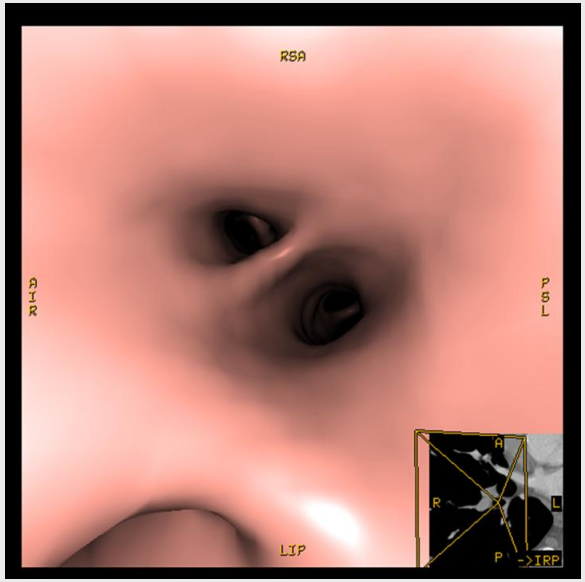
Virtual colonoscopy

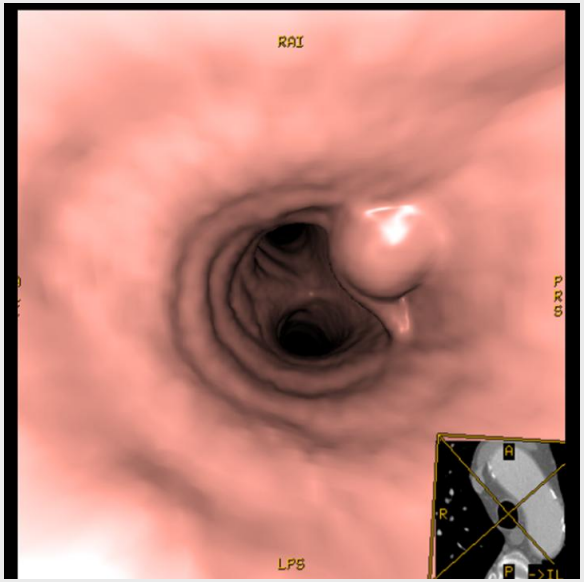


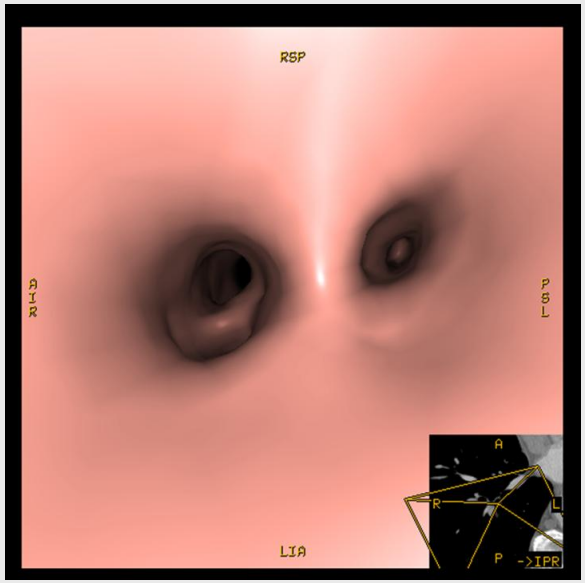







RSA
AIR
PSL
LIP
A
R
L
P
->IRP


RAI
PRS
LPS
A
R
P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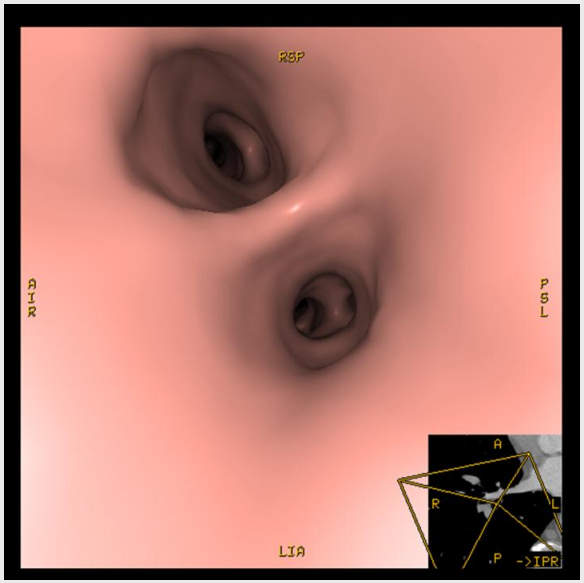
RSP
AIR
PSL
LIA
A
R
L
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->IPR