



Study Protocol

Atrial fibrillation with PA injection and rapid pacing

The 3D segmentation of the left atrium and the endoscopic view support planning and follow-up for atrial fibrillation ablation procedures.

Arrhythmias

[siemens-healthineers.com/cardiology](https://www.siemens-healthineers.com/cardiology)

Case Description

Patient history

Left atrium segmentation for ablation treatment – pulmonary vein isolation.

Diagnosis

Paroxysmal atrial fibrillation

Treatment

Ablation therapy

Tips & Tricks

- PA injection
- Use breathhold to reduce respiratory motion artifacts.
- Arms can be kept in normal position beside the body.
- RV rapid pacing (always 200 bpm) 1 second before starting the rotation.
- Three 2D angiograms of pulmonary veins (with short contrast injection) are acquired during the procedure to manually readjust the 3D image during *syngo* iPilot when needed (e.g., after patient movement).

Optional

- CS catheter in place during acquisition for readjustment during *syngo* iPilot overlay.
- Visualization of aorta during trans-septal puncture in order to avoid aortic injury.

Courtesy of

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Supported by

syngo DynaCT Cardiac
syngo iPilot
syngo InSpace3D
syngo InSpaceEP

System & Software

Artis zee with 30 × 40 FD
syngo X Workplace

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Acquisition protocol	5sDCT Card
Number of projections	248
System dose	0.36 μ Gy/f
Increment in degrees	0.8°/f

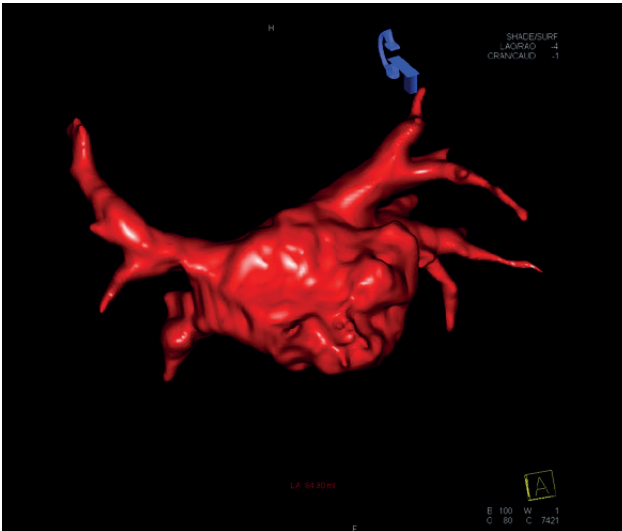
Injection protocol

Catheter position	Pulmonary artery
Contrast medium (CM)	370 mg iodine/mL
Test bolus	20 mL/s pure contrast agent over 1 s
Dilution	70%
Injection volume	100 mL (70 mL CM/30 mL saline)
Injection rate	20 mL/s
Duration of injection	5 s
X-ray delay	7 s, depends on test bolus
Power injector used	Yes

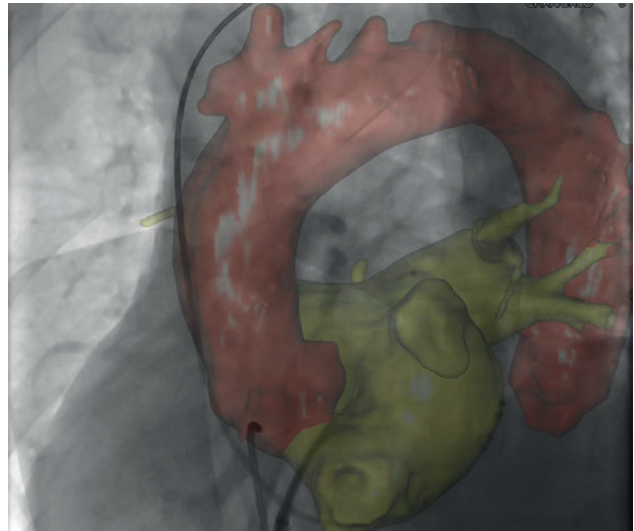
Reconstructions

VOI size	Full
Slice matrix	256 × 256
Kernel type	HU
Image characteristics	Normal
Reconstruction mode	Nat fill
Viewing preset	Golden

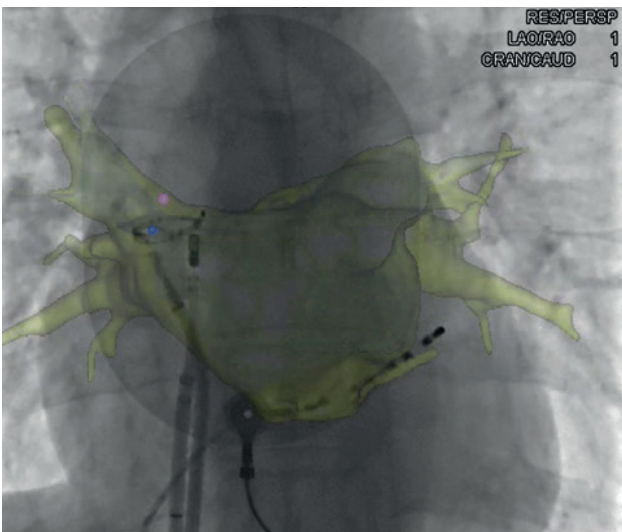
Clinical Images



Visualization of left atrium with syngo InSpaceEP



syngo iPilot with overlay of left atrium and aorta



syngo iPilot point tagging and mesh clipping

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