# Left atrial appendage closure

*syngo DynaCT Cardiac has the potential to facilitate and accelerate the procedure, and make the treatment safer. syngo DynaCT Cardiac provides additional value when measuring the ostium and length of the LAA, and helps in selecting the correct device size.*

## Structural Heart Disease

Study Protocol

**Courtesy of**
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**Supported by**
- *syngo* DynaCT Cardiac
- *syngo* iPilot
- *syngo* InSpace3D

**System & Software**
Artis Q.zen
*syngo* X Workplace

## Case Description

**Patient history**
The patient was a 74-year-old male weighing 91 kg, with a height of 1.67 m.

**Diagnosis**
Permanent atrial fibrillation (AFib), contraindication for oral anti-coagulation due to severe bleeding events. Pre-procedural echo showed no thrombus in the left atrial appendage (LAA).

**Treatment**
LAA closure with occluder (Boston Scientific Watchman™)

**Tips and tricks**
- TEE probe was pulled back during acquisition.
- Arms can be kept in normal position beside the body.
- Use breathhold to reduce respiratory motion artifacts.
- No rapid pacing (if patient is in permanent AFib, rapid pacing can be skipped).
- Pigtail catheter with side holes (close to the center of the LAA ostium).



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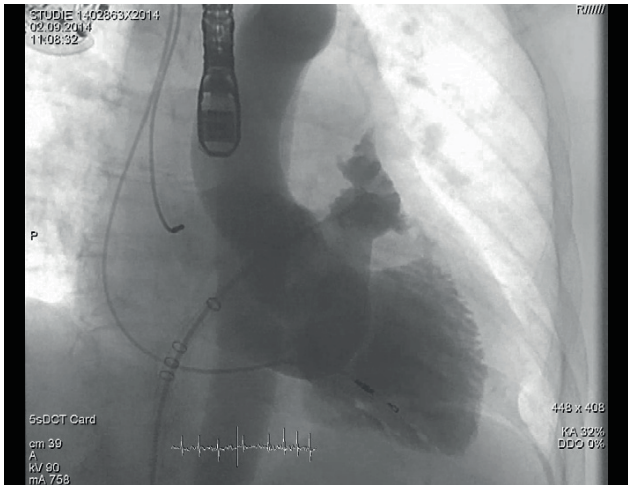
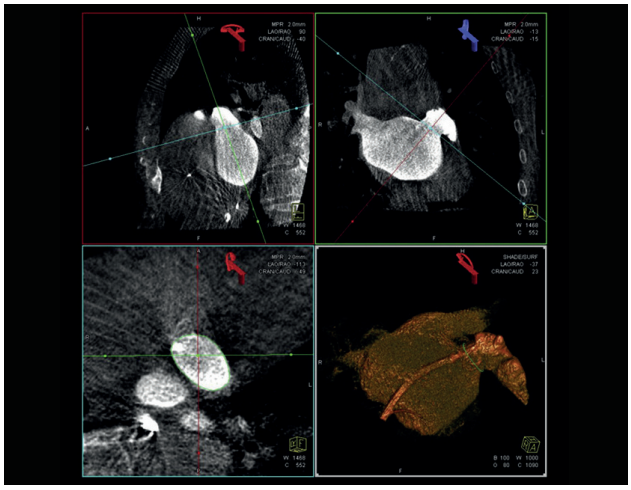
| Acquisition protocol | 5s DCT Card |
|---|---|
| Number of projections | 248 |
| System dose | 0.36 µGy/f |
| Increment in degrees | 0.8 °/f |
| **Injection protocol** | |
| Catheter position | Left atrial appendage |
| Contrast medium (CM) | 350 mg iodine/mL |
| Test bolus | w/o |
| Dilution | 50 % |
| Injection volume | 65 mL<br>(32.5 mL CM/32.5 mL saline) |
| Injection rate | 15 mL/s over 4.33 s |
| Duration of injection | 5 s |
| X-ray delay | 2 s |
| Power injector used | Yes |

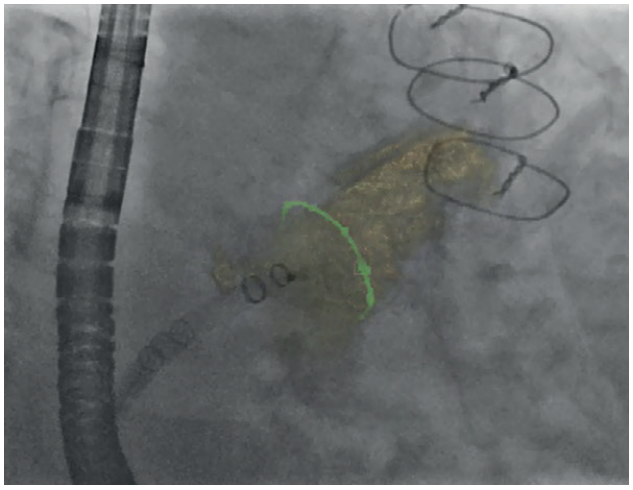
| Reconstructions | |
|---|---|
| VOI size | Full |
| Slice matrix | 512 × 512 |
| Kernel type | HU |
| Image characteristics | Normal |
| Reconstruction mode | Nat fill |
| Viewing preset | Golden |




AP projection from rotational angiography with direct injection into the LAA



*syngo* InSpace reconstruction of the LAA, with measurements of the ostium and the length of the LAA in MPRs



*syngo* iPilot with overlay of 3D structure and landing zone onto the live fluoro image



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