



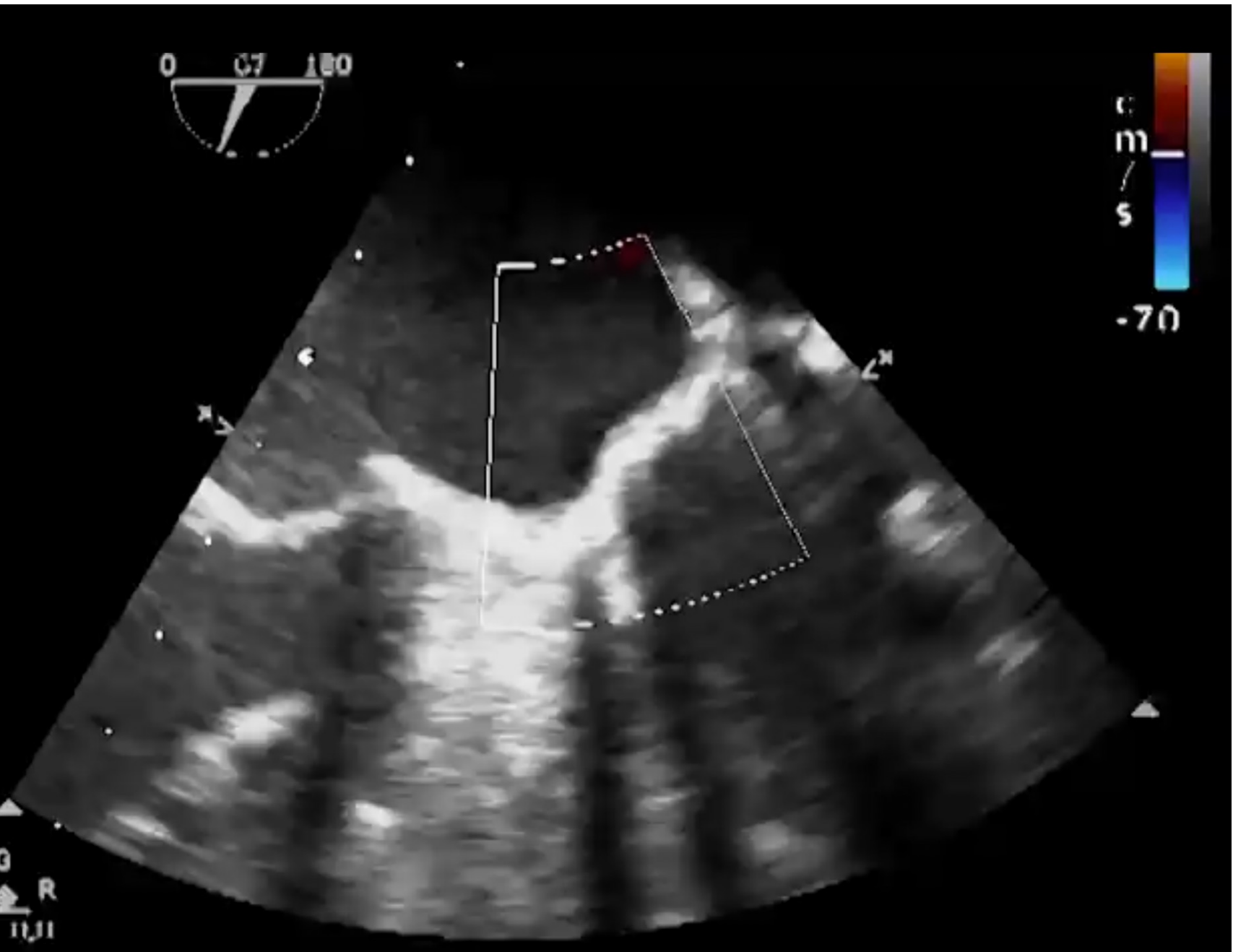
Robotic-assisted Closure Of The Left Atrial Appendage With An Epicardial Clip During Minimally Invasive Cardiac Surgery

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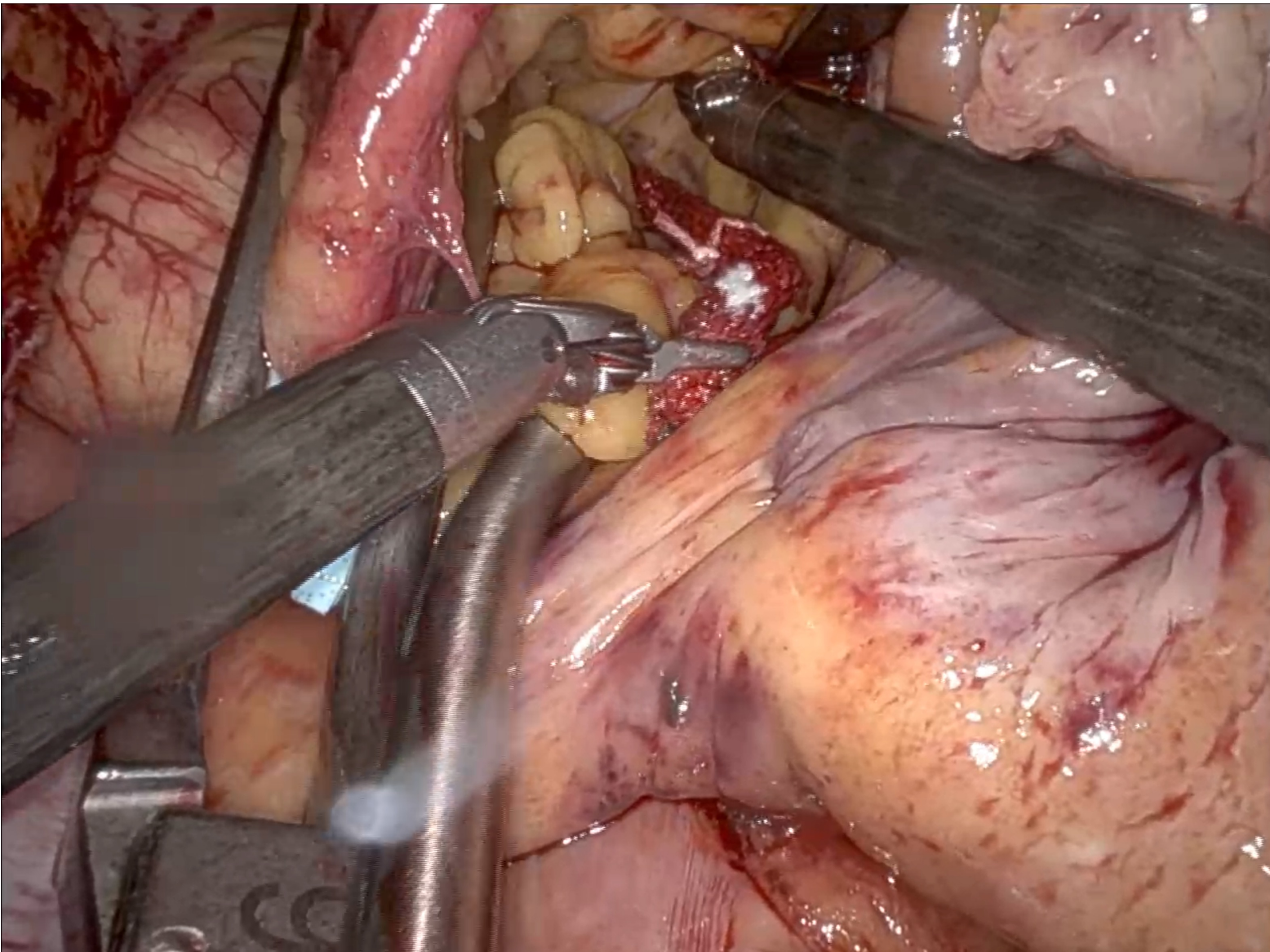
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• **BACKGROUND:**

The left atrial appendage is a major source of stroke in patients with atrial fibrillation, and clinical benefits of left atrial appendage occlusion have been demonstrated in previous studies. Complete exclusion of the left atrial appendage has been recently available with an epicardial clipping device in the setting of minimally invasive cardiac surgery.



Ryc. Complete exclusion of the left atrial appendage in T.E.E.



CONCLUSIONS: Left atrial appendage occlusion using an epicardial clipping device during cardiac surgery can be performed successfully in robotic-assisted minimally invasive cardiac surgery.

• **METHODS:**

The study enrolled 26 consecutive patients who received surgical left atrial appendage occlusion using an epicardial clipping device in a robotic-assisted minimally invasive cardiac surgery setting from October 2020 to December 2024. The minimally invasive cardiac surgery included cardiac surgeries performed through a mini-thoracotomy. The procedural success of left atrial appendage complete exclusion was examined with transesophageal echocardiography. Complete left atrial appendage exclusion was defined as a remnant less than 10 mm without contrast leakage.

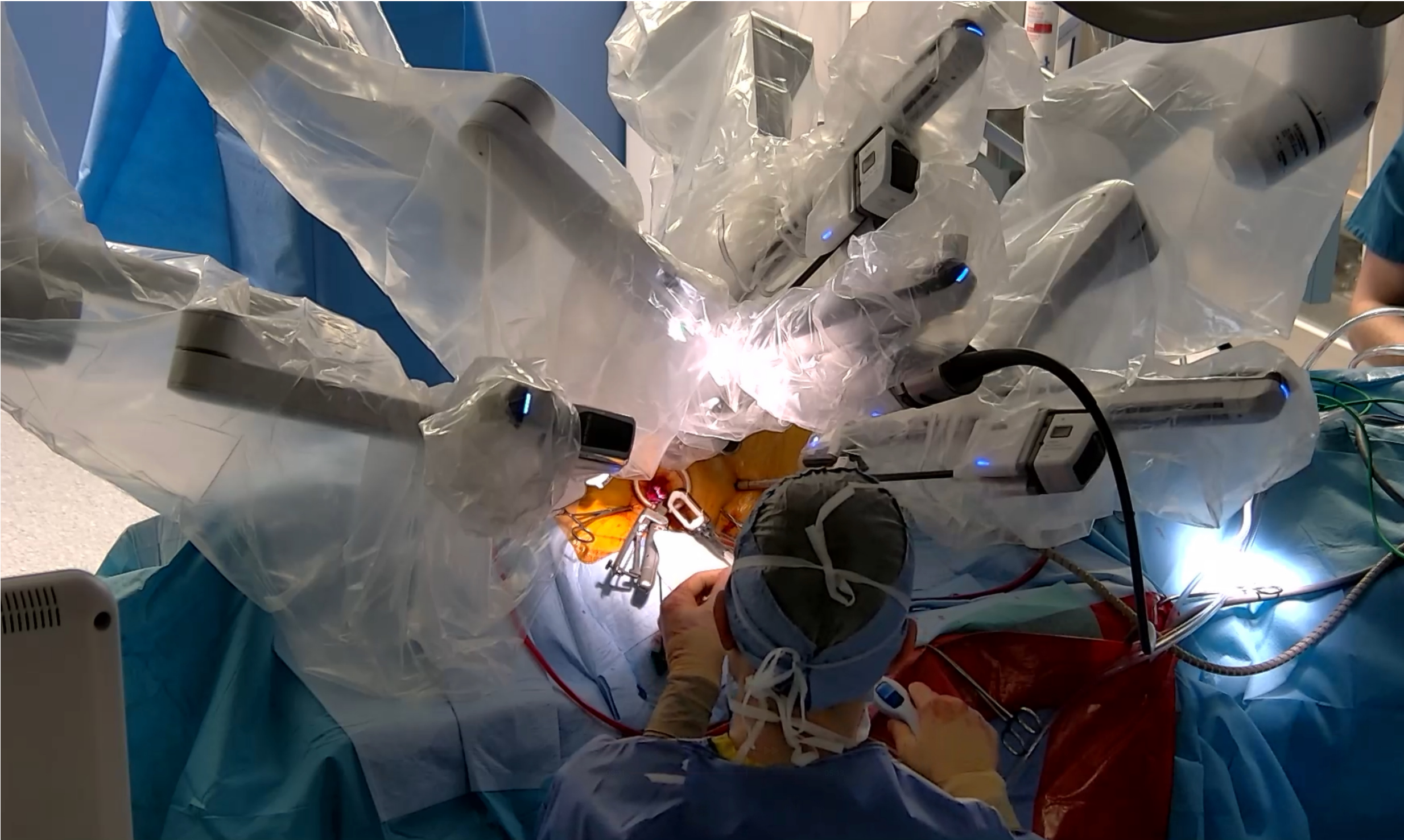
• **RESULTS:**

Among 26 patients (age, 67.5 ± 12,5 years; 12 female, 46.1%) who were finally enrolled in the study, transesophageal echocardiography was available in 26 patients. All patients had preoperative atrial fibrillation. Of these, 18 patients underwent simultaneous mitral valve procedures, and 8 received mitral and tricuspid valve procedures and surgical ablation. There were no early deaths or device-related complications. For the procedural success rate, complete exclusion of the left atrial appendage was achieved in 25 patients (96,2%). During a median follow-up (1-4 years), there were no thromboembolic events or device-related reoperations

Patient characteristics	n=26
Age [mean (SD)]	67.5 ± 12,5
Female	12 (46,1%)
Preoperative atrial fibrillation	26 (100%)

Procedure	n=26
Simultaneous mitral valve procedures	18 (69%)
Mitral and tricuspid valve procedures and surgical ablation	8 (31%)
Complete exclusion of the left atrial appendage	25 (96,2%)

Complications	n
Early deaths	0
Device-related complications	0
Follow-up (1-4 years)	
Thromboembolic events	0
Device-related reoperations	0



Ryc. Closure of the left atrial appendage with the AtriClip Pro system through the transverse sinus.