

TOTALLY ENDOSCOPIC TRANSMITRAL REMOVAL OF A POST ISCHAEMIC LEFT VENTRICULAR THROMBUS

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BACKGROUND

The development of totally endoscopic cardiac surgery has the potential to enhance clinical results. In high-volume centres with experience of endoscopic approaches, this can also be used for challenges and emergency cases.

METHODS

A 61-year-old woman was referred to our institution for the onset of retrosternal pain associated with electrocardiogram changes (anterior ST segment elevation). Coronary arteriography showed a spontaneous mid-distal anterior descending artery dissection. Transthoracic echocardiography revealed altered regional kinetics with moderately depressed global systolic function (EF=40%) and akinesia of the apical segments. The echocardiogram performed two days later showed a 17 x 23 mm apical thrombosis attached to the distal septum with partial mobility. After a multidisciplinary discussion, it was decided to remove the thrombus surgically. A totally endoscopic approach was performed via a small right thoracotomy. A percutaneous femoral cardiopulmonary bypass was established. A small incision was made in the third intercostal space at the level of the right anterior axillary line. The endoscopic system was inserted into the same intercostal space. After a single dose of warm blood cardioplegia, the left atrium was opened and the thrombus was completely removed by passing through the mitral valve. By the use of the endoscope it was possible to visualize ventricular cavity up to the apex and completely and safely remove the thrombus

RESULTS

The postoperative course was uneventful and the patient was discharged in fifth postoperative day without complications.



Fig 1: Echocardiographic visualization

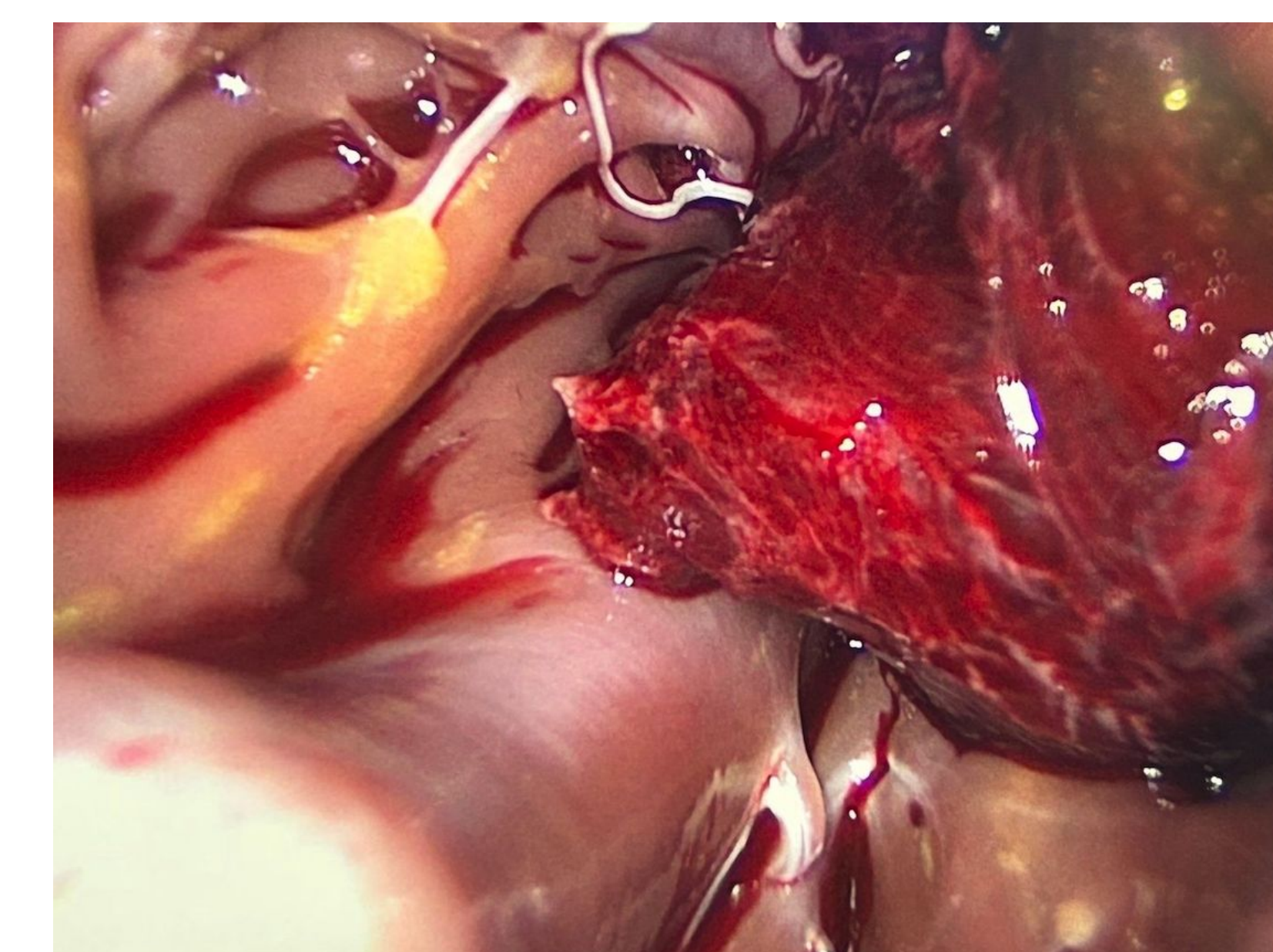


Fig 2: Endoscopic view of Thrombus

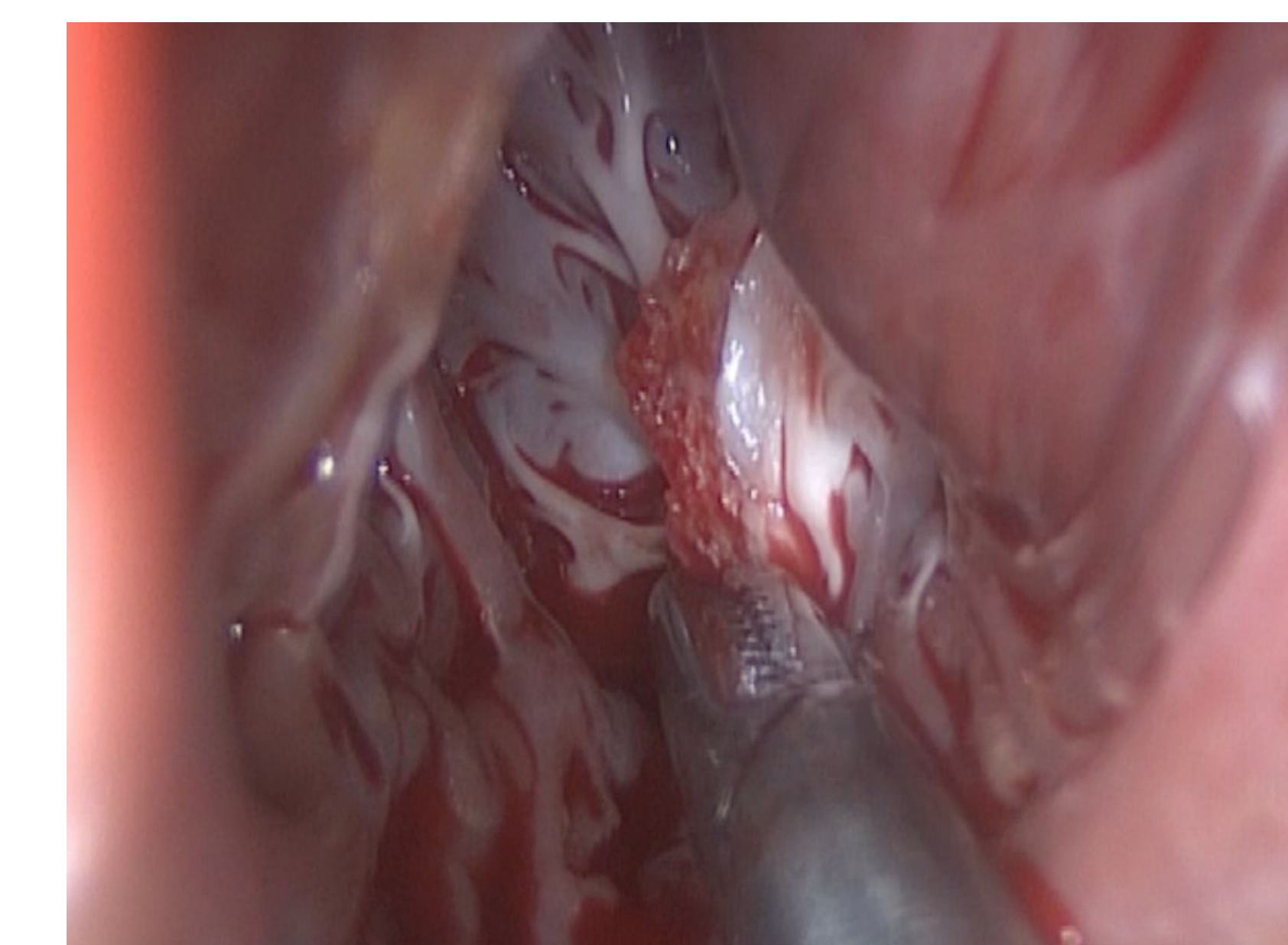


Fig 3 : Total Thrombus Removal

CONCLUSION

The better visualization obtained with the endoscope allows for a complete and safe removal of left ventricular thrombus. Totally endoscopic transmitral approach for a left ventricular thrombus removal is a safe, effective and reproducible option in experienced centres.