The Modified Ross Procedure through L-shape Ministernotomy. How We Do It

Objective
To demonstrate a technique of the modified Ross procedure we use in our center to reinforce the pulmonary autograft.

Case Video Summary
A 19-year-old male patient was referred to our institution with history of dyspnea on exertion. There was no family history of genetic syndromes, aortic aneurysms or dissections. Transthoracic echocardiogram showed the monocuspid morphology of the aortic valve. There was severe central aortic regurgitation with vena contracta of 7 mm. The left ventricular cavity was dilated up to 55 mm. The decision was made to proceed with the Ross procedure through L-shaped upper hemisternotomy. Our technique of the modified Ross procedure used to reinforce the pulmonary autograft is demonstrated in detail in the video.

Conclusions
The patient was extubated 7 hours later and transferred from the intensive care unit to the ward 17 hours postoperatively. The postoperative echocardiography confirmed an excellent haemodynamic outcome. The patient was discharged home in satisfactory condition. In expert centers, the reinforced Ross procedure can be successfully performed using the L-shaped ministernotomy. To date, we have performed over a thousand of the Ross procedures, and our experience shows suitability of the minimal access and benefits of reinforcement of the pulmonary autograft with a Dacron tube in the long term.

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