

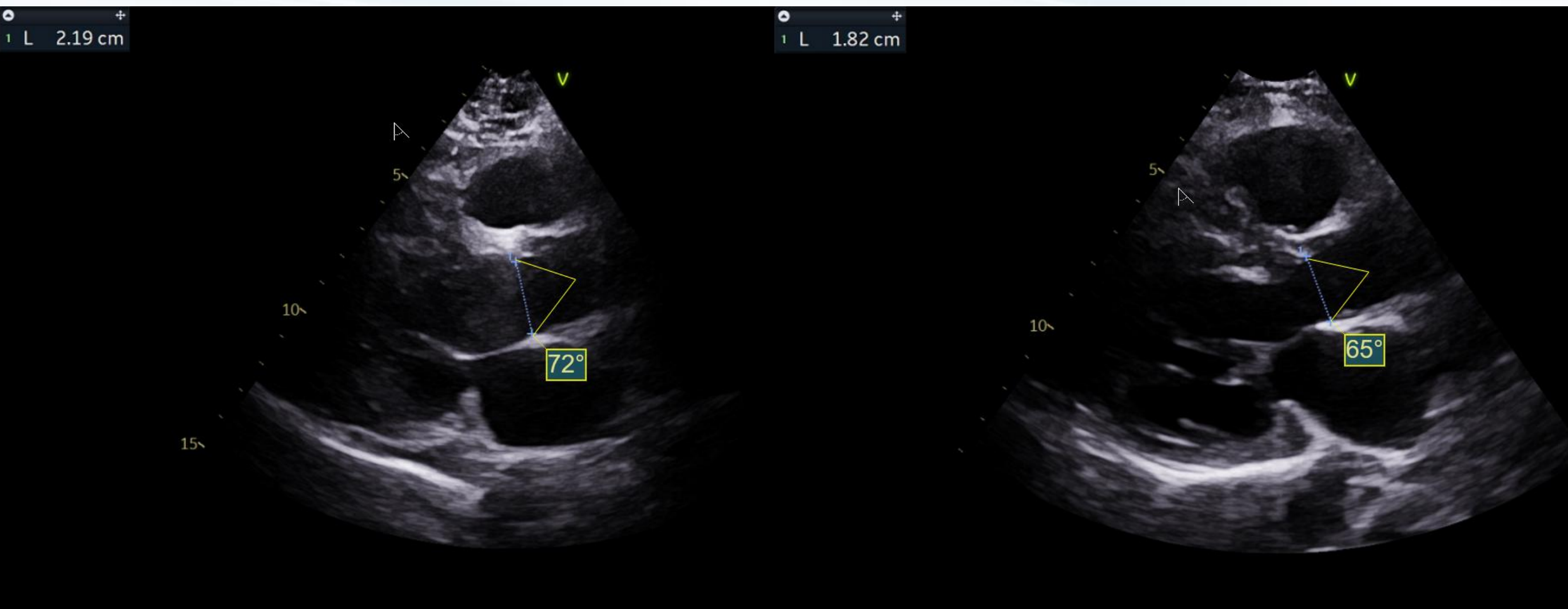
An Innovative Minimally Invasive Electroseptal Myectomy For Obstructive Hypertrophic Cardiomyopathy With A Small Aortic Root



Zhiqiang Dong, MD¹, Shuwei Wang, MD¹, Erlei Han, MD¹, Changhao Wu, MD¹, Chentao Luo, MD¹, Weikang Chen, MD¹, Fuyang Mei, MD¹, Xiaofeng Lu, MD¹, Zhibin Hu, MD¹, Bing Zhou, MD¹, Yong Cui, MD, PhD^{1*}

Background

The size of the aortic annulus is closely related to surgical exposure in patients with hypertrophic obstructive cardiomyopathy (HOCM) during operation. This study aims to evaluate the clinical outcomes of a novel minimally invasive approach in patients with a small aortic root.



Methods

Patients with HOCM who underwent minimally invasive electroseptal myectomy (MESM) via a right infra-axillary incision at our center from November 2023 to August 2025 were included. Those who underwent concurrent aortic valve replacement were excluded. Aortic annulus diameter <20 mm was defined as a small aortic root. Patients were divided into two groups based on this criterion, and clinical outcomes were analyzed.

Result

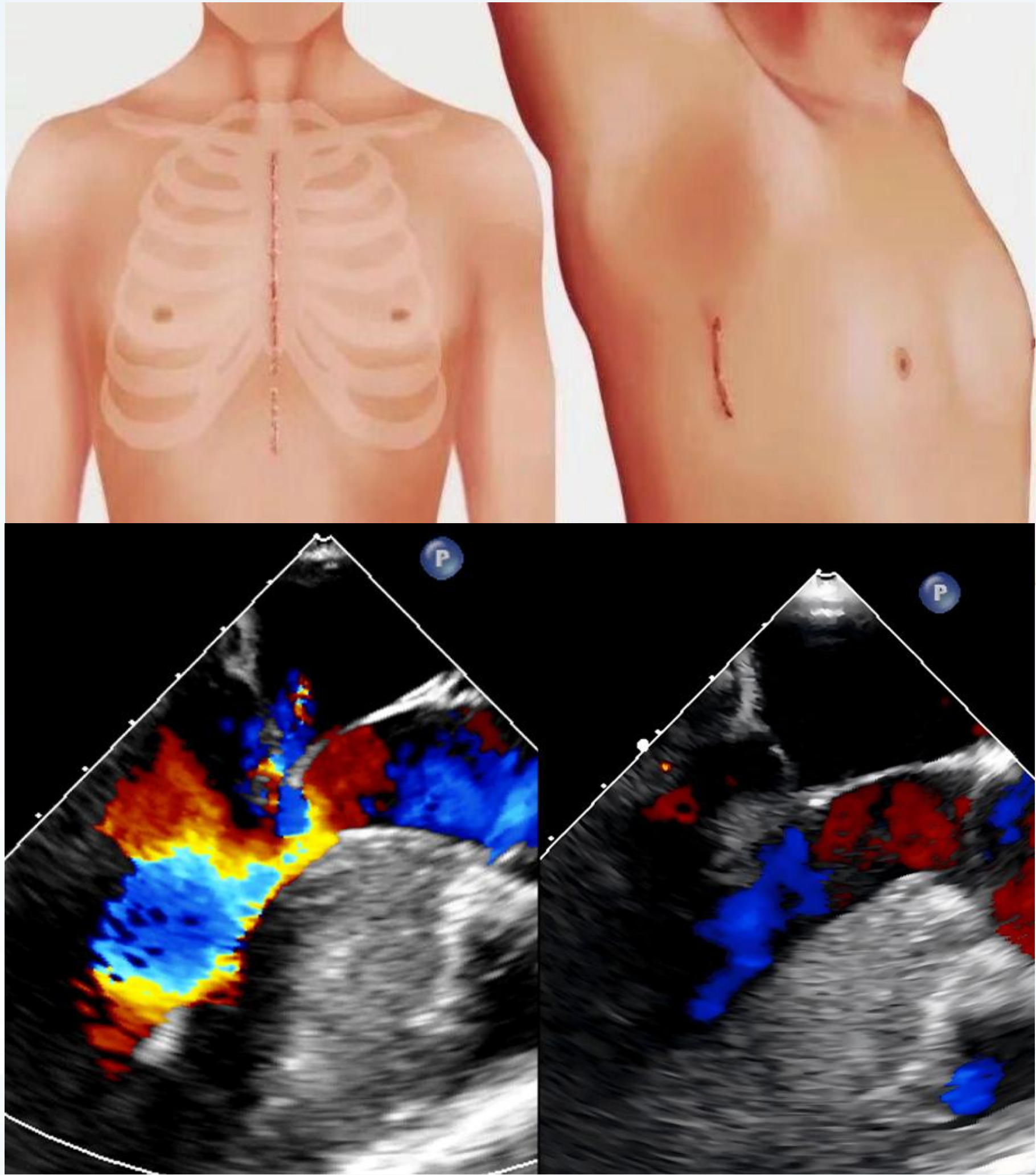
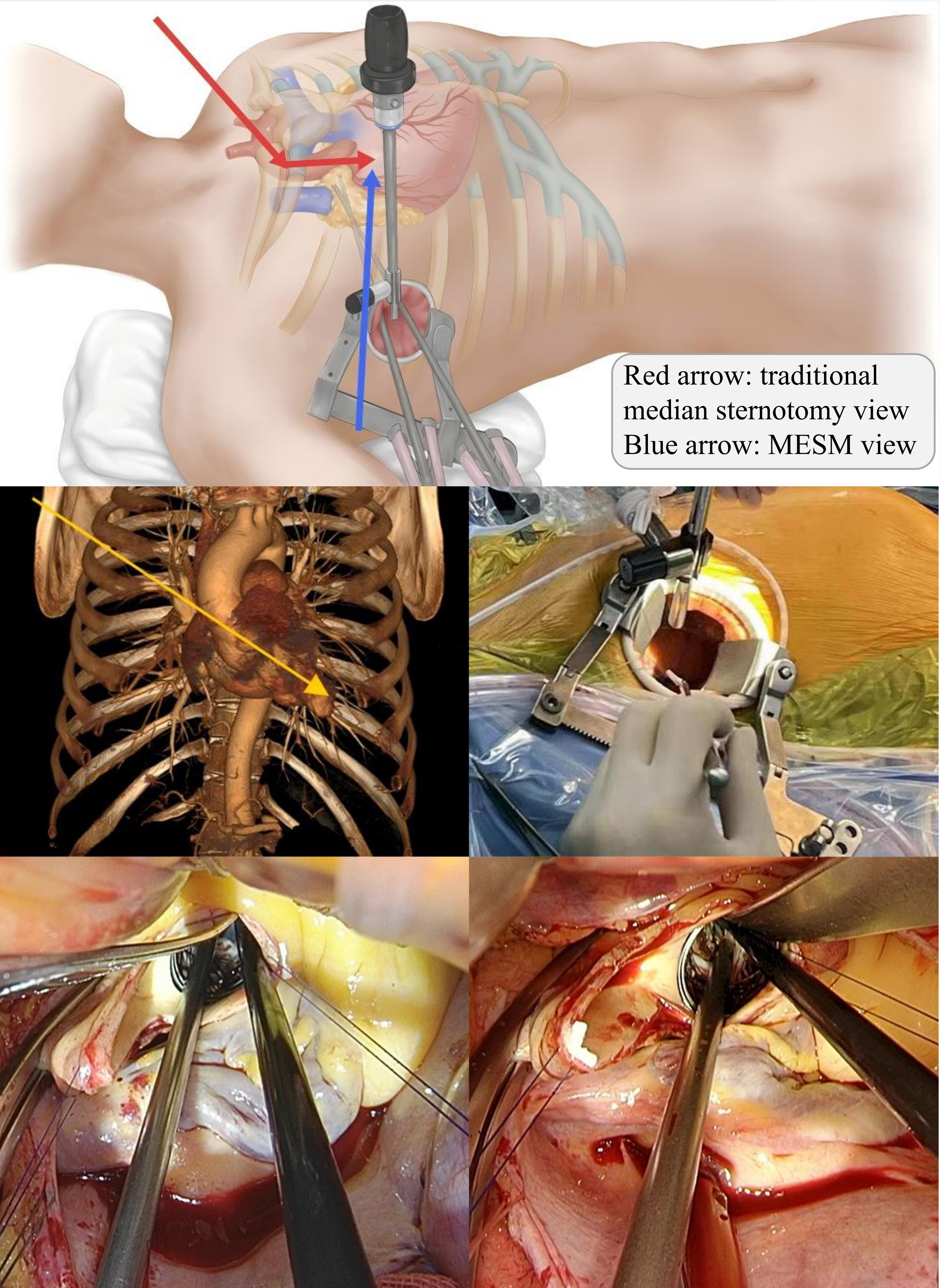
426 LVOTO patients underwent MESM

mean age : 47.0 ± 14.3 years (12–82 years)

	SAR Group	NAR Group
aortic cross-clamp time	60.3 ± 18.8	59.1 ± 15.3
cardiopulmonary bypass time	95.3 ± 25.2	94.6 ± 18.8
postoperative hospital stay	6.5 ± 1.3	6.6 ± 1.1
LVOT graient	8.3 ± 2.0	8.0 ± 1.9

97.9%
were extubated in
the OR

0.0%
in-hospital deaths
or iatrogenic VSD



Conclusion

Minimally invasive electroseptal myectomy via a right infra-axillary incision provides excellent surgical exposure even in patients with a small aortic root, with clinical outcomes comparable to those in patients with a normal aortic root.

Contact

Zhiqiang Dong, MD, namedzq@foxmail.com
Yong Cui, MD PhD, strait@126.com
Department of Cardiovascular Surgery,
Zhejiang Provincial People's Hospital
Hangzhou Zhejiang, China