

## Central aortic cannulation with transesophageal echocardiography guidance for Stanford type A aortic dissection

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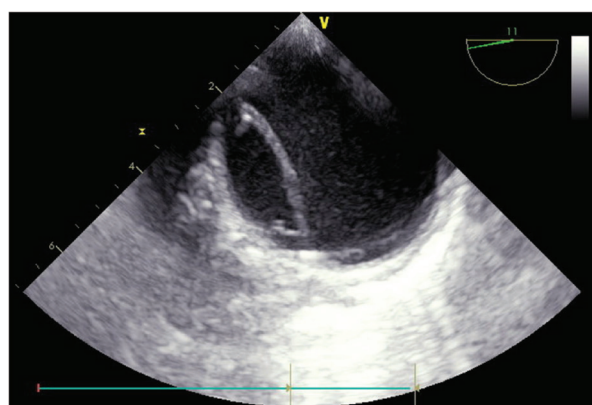


FIGURE 1. True lumen identification.

Acute Stanford type A Aortic dissection is a life-threatening disease in which urgent surgery is primarily life-saving.<sup>1,2</sup> Safe and expeditious initiation of cardiopulmonary bypass (CPB) is important to stabilize the patient's hemodynamic status and prevent further end-organ damage imposed by the pathophysiologic dissection process.<sup>1</sup> Central aortic cannulation using the Seldinger technique under transesophageal echocardiography (TEE) guidance is a safe cannulation method with the benefit of establishing quick true lumen perfusion and expediting the surgical procedure.<sup>3,4</sup> Both, dynamic and static obstruction of aortic branches are well-described mechanisms of end-organ damage<sup>2</sup>, and early pressurization of the true lumen might alleviate those effects. We use TEE-guided ascending aortic central cannulation using the Seldinger technique during surgery in a total number of 3 patients during 2024. All patients were operated by the same surgeon. TEE is used to confirm the position of the guide wire in the true lumen of the descending aorta, and after that needle was taken out, and the cannula was advanced over the guide wire TEE confirmed the accurate positioning of

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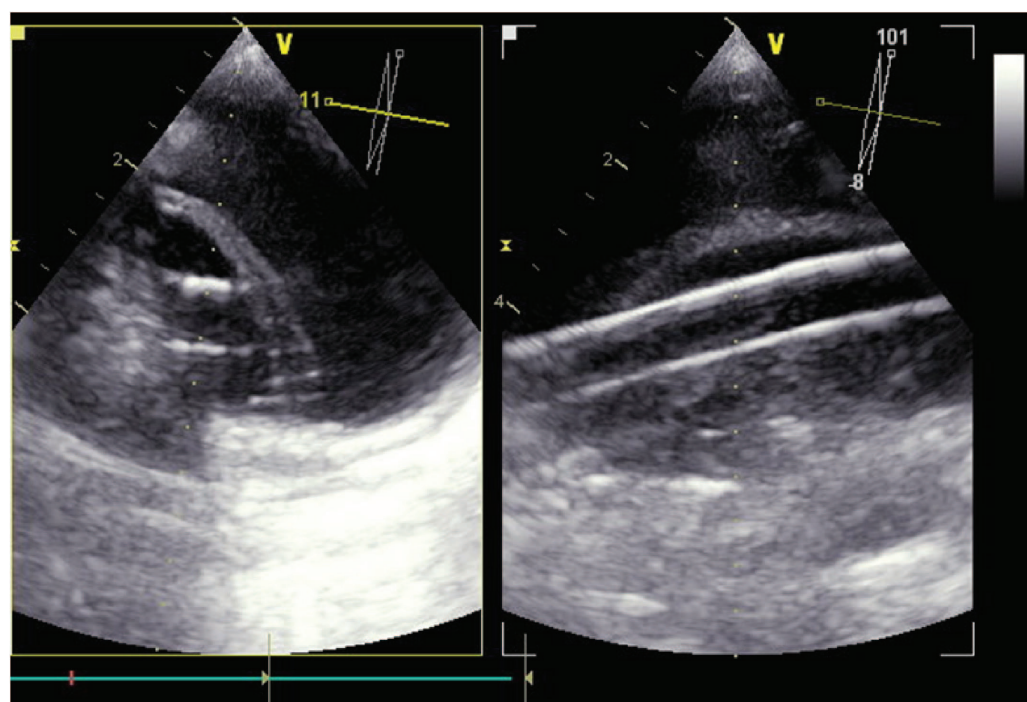
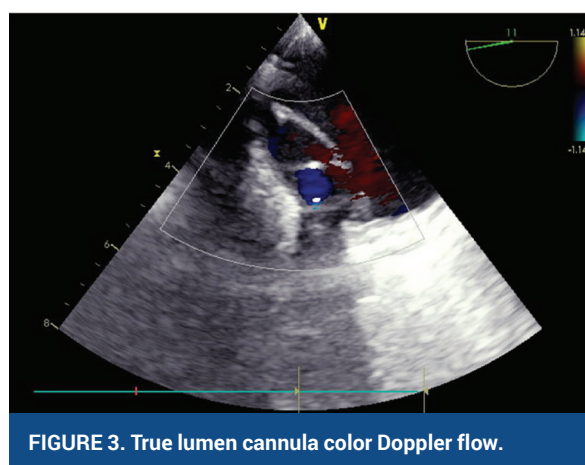
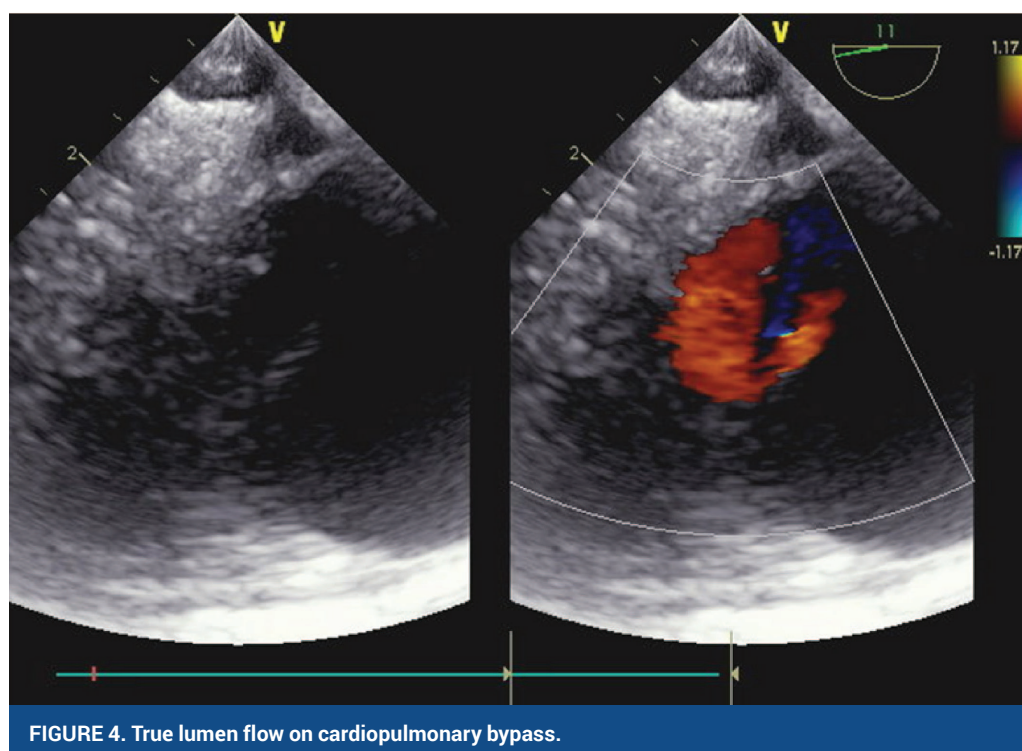


FIGURE 2. True lumen cannula.

the cannulation into the true lumen (**Figures 1-4**). It was achieved in all 3 patients. Aortic arch cannulation with the guidance of TEE during the aortic arch surgery is a simple, fast, safe, and less invasive technique for establishing cardiopulmonary bypass for Stanford type A aortic dissection.<sup>4</sup>



**FIGURE 3. True lumen cannula color Doppler flow.**



**FIGURE 4. True lumen flow on cardiopulmonary bypass.**

## LITERATURE

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