The addition of dobutamine echocardiography as a functional diagnostic method for identification of recoverable myocardium, as suggested by Drs Ancona and Pilato, could aid in better understanding this complex disease and should be considered as part of a comprehensive diagnostic workup of patients with ischemic cardiomyopathy. This diagnostic algorithm represents a welcome and long-needed shift from ''valvulo-centric'' to ''ventriculo-centric'' focus in management of patients with ischemic cardiomyopathy and functional ischemic regurgitation.[3]

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SAFETY OF AXILLARY ARTERY CANNULATION

To the Editor:

We read the report of Takayama and colleagues[1] about the successful management of aortic root replacement with axillary artery cannulation and open distal anastomosis technique. For ascending and aortic arch repair, we use a similar cannulation site, the right brachial artery. We previously published our results of 104 arch repair cases that we performed with low-flow antegrade cerebral perfusion through the right brachial artery and with an open distal anastomosis technique during moderate hypothermia.[2] We congratulate the authors for their excellent results, but we would like to remind them that neither axillary nor brachial artery cannulation is totally safe and reliable.

There are literature reports about the pitfalls of axillary artery cannulation, including arterial injury, new aortic dissection, compartment syndrome/arm ischemia, brachial plexus injury, inadequate cardiopulmonary bypass flow, and malperfusion.[3] In a patient with acute type I aortic dissection, we recently experienced a complication of axillary artery cannulation that we could not have realized initially. The patient's brachial artery diameter was very small, and therefore we preferred axillary artery cannulation with a side-graft anastomosis. The axillary arterial wall looked normal, and its flow seemed to be adequate. As soon as we started cardiopulmonary bypass, the pressure in the arterial lines exceeded normal ranges, and bleeding occurred around the axillary artery cannula. We decided that our cannula was in the false lumen. We quickly switched the inflow cannula to the innominate artery. The patient did wake up without any neurological deficit. For aortic dissections extending into the axillary artery, it is possible for the surgeon not to realize this situation, and he or she might end up cannulating the false lumen. One should be very cautious about the line pressure at the initiation of cardiopulmonary bypass and should be ready for alternative techniques, if necessary.

We would like to remind the authors of another condition in which axillary artery cannulation is not safe or even contraindicated. An aberrant right subclavian artery is an anatomic variation that is more common than we think, with a prevalence of 0.4% to 2%. The aberrant right subclavian artery originates from the proximal descending aorta, and patients with this anomaly are typically asymptomatic.[4,5] It is clear that the inflow will route to the descending aorta with right axillary artery cannulation in such a patient, and therefore alternative cannulation sites are to be used. Direct cannulation of the right, the left, or both carotid arteries can be used in this situation. We would like to underline that the existence of an aberrant right subclavian artery is not that rare and must be kept in mind.

We conclude that in these complex surgical approaches, the ideal method of arterial access is not identical and changes individually. Perfusion, neuroprotection, and open graft replacement techniques depend on anatomic considerations and prudential judgments.

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Reply to the Editor:

We have read the article by Dr Küçüker and his colleagues with great interest. They should be congratulated on their excellent clinical outcome of arch repair using right brachial artery cannulation.[1] Their technique achieves the same goal as the axillary artery cannulation technique. Although the brachial artery might be easier to access, its size might occasionally prevent it from