Aortic and Venous Cannulation in Coronary Surgery

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Dear Editor,

I read the article “Cardioprotective Effects of Total Intravenous Anaesthesia and Inhalation Anaesthesia on On-Pump Coronary Artery Bypass Grafting (CABG) Surgery” by Bahar Sarıdoğar et al. and published in your Journal, with interest (1). The more interesting for me is the statement under the topic of “Surgery technique” that, in brief, double venous cannulation of superior and inferior vena cava and arterial cannulation of the descending aorta was performed and a vent cannula was placed through the left superior pulmonary vein.

However, conventional knowledge and routine practice concerning CABG surgery is the artery cannulation of the ascending aorta, “two-stage” vein cannulation, and placement of a vent cannula through the right superior pulmonary vein.

Was there any structural malformation that required going against routine surgical intervention in 40 patients included in the study by the researchers, or is it the routine practice of that centre?

References

1. Sarıdoğar B, Baysal A, Şavluk Ö, Doğukan M, Koçak T. The Cardioprotective Effects of Total Intravenous Anaesthesia and Inhalation Anaesthesia During On-Pump Coronary Artery Bypass Graft (CABG) Surgery. *Turk J Anaesth Reanim* 2013; 41: 50-8.

Author's response

Dear Editor,

In our study “Cardioprotective Effects of Total Intravenous Anaesthesia and Inhalation Anaesthesia on On-Pump Coronary Artery Bypass Grafting (CABG) Surgery” published in the Turkish Journal of Anaesthesia and Reanimation, the artery and vein cannulation techniques that are being routinely used in CABG surgery in our operating room, was described under the topic of “Surgical technique” (1). Surgical technique is an important

issue, on which cardiovascular anaesthesiologists must have detailed information, and we particularly thank for the question on this subject. In our hospital, bicaval cannulation is performed in the superior and inferior vena cava together with aortic cannula in the ascending aorta in CABG surgery as our reader mentioned. During aortic cannulation, it is anatomically not possible to perform cannulation in the descending aorta, the term “ascending” has somewhat been miswritten as “descending” and we correct it. The term double-venous cannulation expresses that both veins are involved in the cannulation. In Turkish, the term “bikaval” is used instead of this expression, however, thinking that this expression might be misunderstood by the readers, it was tried to be defined more clearly and an expression that is usually used in basic cardiac surgery textbooks, was used (2). Moreover, there is no similarity between the term “Two-stage cannulation” and the statement “superior and inferior vena cava were cannulated”, because, as is known, “two-stage cannulation” is a different term and is performed by a specific cannula named as “two-stage” including two sets of holes (3). Blood flow to the left ventricle is encountered in all surgeries that require cardiopulmonary bypass regardless of the cannulation technique, and a vent cannula is performed in the right superior pulmonary vein to prevent this (1). In our paper, the statement that pulmonary vein should be used for vent cannula is correct but it has been written as left instead of right by clerical mistake. We, herein, correct this mistake and thank for your valuable criticisms.

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1. Sarıdoğar B, Baysal A, Şavluk Ö, Doğukan M, Koçak T. The Cardioprotective Effects of Total Intravenous Anaesthesia and Inhalation Anaesthesia During On-Pump Coronary Artery Bypass Graft (CABG) Surgery. *Turk J Anaesth Reanim* 2013; 41: 50-8.
2. Baumgartner FJ. *Cardiothoracic Surgery*, 3rd edition, Texas: Landes Bioscience; 2003; 36-7.
3. Yamada T, Yamazato A. Central cannulation for type A acute aortic dissection. *Interact Cardiovasc Thorac Surg* 2003; 2: 175-7. [CrossRef]