Editorial on the role of anesthetists in minimally invasive mitral surgery

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This review highlights the anesthetic considerations and management of minimally invasive mitral surgery, which is a field gaining popularity in some centers, hence the importance of the review. Clearly the authors have had reasonable experience through performing many cases with the minimally invasive technique. They have demonstrated adequate knowledge of different cross-clamps and cardioplegia administration and also mentioned a few problems and how to troubleshoot them.

Some concerns need to be raised still despite the potential advantage of the minimally invasive technique: first of all, there was no strong evidence to favor the minimally invasive mitral surgery yet, and any benefits mentioned are based on the experience of operators.

Second, the disadvantages of the minimally invasive surgery were not discussed. We need to be careful about the potential complications that could be encountered in these procedures in contrast to the conventional surgery. The operative time can be significantly lengthy, affecting the patients outcome. Some of the complications likely to happen in minimally invasive technique are almost never heard of in conventional surgery, such as misplacement of the aortic cross-clamp, herniation of the cross-clamp, inadequacy of cardioplegia administration, the difficulty to manage single lung ventilation particularly in congested lungs (frequent in mitral pathologies), injury to groin vessels or neck vessels from the cardiopulmonary bypass cannulae, hidden bleeding, or inadvertent injury to thoracic structures.

Moreover, the complicated setup of such procedures needs to be weighed against the benefits the patients might gain, taking into considerations the time needed to train surgeons, anesthetists, and perfusionists, and the potential risks.

In summary, as any other novel technique, one needs to be careful balancing the enthusiasm of introducing any novelty and the disadvantages it carries with it at least in the initial phase.

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