ANESTHETIC CONSIDERATIONS FOR ROBOTIC CARDIAC SURGERY

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In last two decades significant technological advances have enabled the development of robotic operative techniques in a variety of disciplines and cardiac surgery is one of these fields. These procedures are ultimately aimed at reducing patient morbidity, length of hospital stay, and overall costs.

Till now the early results with robotic systems in cardiac surgery suggest that completely endoscopic approach to different cardiac operations are feasible, promising and satisfactory despite the technical difficulties and lengthy procedures.

The emerge of robotic cardiac surgery has added new challenges to cardiac anesthesiologists who are confronted with a multitude of situations requiring multiple management skills. Limited exposure of the heart during surgery poses challenges with management of arrhythmia, haemostasis and myocardial protection. Prolonged single-lung ventilation, incomplete revascularization in hybrid procedures, and limited access for rapid intervention pose also challenges with patient management. Also conversion to sternotomy that may be required occasionally and extension of portals over several dermatomal segments mandate a versatile analgesic technique.

So, the cardiac anesthesiologist should be versed in cardiac and thoracic anesthesia and must possess the skills required for TEE and nonsternotomy CPB and holds a good idea about the surgical procedures, steps and equipments used.

In this presentation we will discuss some the anesthetic, postoperative, and surgical implications of minimally invasive robotic-assisted cardiac surgery.