Journal of Cardiac Surgery

WILEY | Hindawi

Special Issue on
Robotic Cardiac Surgery

CALL FOR PAPERS

In recent years, advances in technology have had an increasing impact on surgical practice. Robotic devices and, more recently, artificial intelligence are becoming a huge part of daily surgical practice, allowing surgeons and patients to achieve better results with safer and more feasible procedures. With the advancement of surgical technologies, robotic cardiac surgery has seen a steep rise in acceptance in recent years, as it presents many benefits to the patient while avoiding sternotomy, reducing tissue trauma, pain, and bleeding, and speeding recovery. Allowing minimally invasive procedures through small incisions and ports thanks to multi-wristed robotic arms has enhanced surgical maneuvers, with case numbers growing across a large spectrum of procedures. Conversion rates are low and clinical outcomes are favorable, indicating the safety of these high-tech and minimally invasive procedures. There are many highly developed robotic devices with an improved range of motion and dexterity.

While robotic surgery is widely applied in cardiac surgery today, classical non-robotic surgical techniques with median sternotomy have good outcomes are still widely used, and the results of these two techniques should be thoroughly compared and discussed. Non- robotic minimally invasive and transcatheter techniques are also applied, and these techniques should also be compared with robotic cardiac surgery in terms of appropriate patient selection and outcomes.

The aim of our Special Issue is to receive and assemble a wide range of submissions regarding the broad spectrum of robotic cardiac surgical procedures and its implementation in surgical practice. We aim to showcase the feasibility and safety of robotic cardiac surgery and to define its field of application and purposes of application. We welcome both original research and review articles.

Potential topics include but are not limited to the following:

- Basic principle of robotics in cardiac surgery
- Establishing a robotic cardiac surgical program
- Anesthesia for robotic cardiac surgery
- Transesophagial echocardiography for preoperative planning and intraoperative guidance
- Cardiopulmonary perfusion in robotic cardiac surgery
- Robotic mitral valve repair and replacement
- Robotic tricuspid valve repair and replacement
- Robotic aortic valve repair
- Multi-vessel robotic off-pump totally endoscopic coronary artery bypass (TECAB)
- Robot-assisted multivessel coronary revascularization
- Multivessel robotic totally endoscopic coronary artery bypass on the arrested heart
- Robotic congenital heart surgery
- Robotic cardiac tumor excision
- Robotic arrythmia surgery
- Robotic treatment of hypertrophic obstructive cardiomyopathy

Authors can submit their manuscripts through the Manuscript Tracking System at https://review.wiley.com/submit?specialIssue=193446.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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