

论著

经食管超声心动图在全机器人二尖瓣置换术中的作用

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**摘要:** 目的: 探讨经食管超声心动图(TEE)在全机器人二尖瓣(MV)置换术中的作用.方法: 对21例因风湿性心脏病重度MV狭窄行全机器人MV置换患者的超声影像资料进行回顾性分析.在体外循环(CPB)转机前,应用TEE明确MV狭窄发生机制(瓣叶增厚及钙化、交界融合或腱索融合等),评价有无其他心脏病变.根据TEE所见初步拟定手术方案(MV置换或交界分离术).建立外周CPB时,应用TEE引导放置下、上腔静脉插管及升主动脉内心脏停搏液灌注针.心脏复跳后,应用TEE即刻评价人工瓣功能及有无手术相关并发症.结果: 以外科所见为标准,TEE诊断MV狭窄发生机制的准确性为100%;所有患者MV手术均按照初步拟定方案进行.所有患者下、上腔静脉插管及升主动脉内灌注针均放置于适当位置,TEE引导置管成功率为100%.TEE证实所有患者(100%)人工瓣功能正常,无手术相关并发症.结论: 术中TEE在全机器人MV置换术中是有价值的诊断手段.

**关键词:** 经食管超声心动描记术 微创心脏外科 二尖瓣置换术

Intraoperative transesophageal echocardiography in patients undergoing robotic mitral valve replacement

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**Abstract:** Objective: To retrospectively assess the value of intraoperative transesophageal echocardiography (TEE) during robotic mitral valve (MV) replacement. Methods: Intraoperative TEE was performed in 21 patients undergoing robotic MV replacement for severe rheumatic mitral stenosis between November 2008 and December 2010. During the procedure, TEE was performed to document the mechanism of rheumatic mitral stenosis (leaflet thickening and calcification, commissural fusion or chordal fusion) before cardiopulmonary bypass (CPB). During the establishment of peripheral CPB, TEE was used to guide the placement of the cannulae in the inferior vena cava (IVC), superior vena cava (SVC), and ascending aorta (AAO). After weaning from CPB, TEE was performed to evaluate the effect of the procedure. Results: Accuracy of TEE was 100% for rheumatic mitral stenosis. All the cannuli in the SVC, IVC and AAO were located in the correct position. In all patients, TEE confirmed successful procedure. Conclusion: TEE is useful in the assessment of robotic MV replacement.

**Keywords:** transesophageal echocardiography minimally invasive cardiac surgery mitral valve replacement

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参考文献:

1.Bonow RO, Carabello BA, Chatterjee K, et al. ACC/AHA 2006 guidelines for the management of

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- patients with valvular heart disease: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (writing Committee to Revise the 1998 guidelines for the management of patients with valvular heart disease) developed in collaboration with the Society of Cardiovascular Anesthesiologists endorsed by the Society for Cardiovascular Angiography and Interventions and the Society of Thoracic Surgeons [J]. *J Am Coll Cardiol*, 2006, 48 (3): e1-148.
2. Lehr EJ, Rodriguez E, Chitwood WR. Robotic cardiac surgery[J]. *Curr Opin Anaesthesiol*, 2011, 24 (1): 77-85.
3. Sheikh KH, de Bruijn NP, Rankin JS, et al. The utility of transesophageal echocardiography and Doppler color flow imaging in patients undergoing cardiac valve surgery[J]. *J Am Coll Cardiol*, 1990, 15 (2): 363-372.
4. Khandheria BK, Tajik AJ, Seward JB. Multiplane transesophageal echocardiography-examination technique, anatomic correlations, and image orientation[J]. *Critical Care Clinics*, 1996, 12 (2): 203-233.
5. 王瑶, 高长青, 王刚, 等. 术中经食管超声心动图在全机器人房间隔缺损修补术中的作用[J]. *中华超声影像学杂志*, 2008, 17 (6): 461-466. WANG Yao, GAO Changqing, WANG Gang, et al. The importance of intraoperative transesophageal echocardiography in totally endoscopic atrial septal defect repair with robotic assistance [J]. *Chinese Journal of Ultrasonography*, 2008, 17 (6): 461-466.
6. Wang Y, Gao CQ, Wang JL, et al. The Role of Intraoperative transesophageal echocardiography in robotic mitral valve repair[J]. *Echocardiography*, 2011, 28 (1): 85-91.
7. Jeanmart H, Casselman FP, De Grieck Y, et al. Avoiding vascular complications during minimally invasive, totally endoscopic intracardiac surgery[J]. *J Thorac Cardiovasc Surg*, 2007, 133 (4): 1066-1070.
8. Kypson AP, Nifong LW, Chitwood WR, et al. Robotic mitral valve surgery[J]. *Semin Thorac Cardiovasc Surg*, 2003, 15 (2): 121-129.
9. Shapira Y, Vaturi M, Weisenberg D, et al. Intraoperative transesophageal echocardiography during valve replacement surgery. A review[J]. *Minerva Cardioangiol*, 2007, 55 (2): 229-237.
10. Rosenhek R, Binder T, Maurer G. Intraoperative transesophageal echocardiography in valve replacement surgery[J]. *Echocardiography*, 2002, 19 (8): 701-707.

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