

马跃,侯阳,郭启勇.多层螺旋CT在经导管主动脉瓣植入术中的应用[J].中国医学影像技术,2014,30(8):1272~1275

多层螺旋CT在经导管主动脉瓣植入术中的应用

Applications of MSCT in transcatheter aortic valve implantation

投稿时间 : 2014-03-17 修订日期 : 2014-06-06

DOI :

中文关键词: [体层摄影术](#) [X线计算机](#) [经导管主动脉瓣植入术](#)

英文关键词: [Tomography](#) [X-ray computed](#) [Transcatheter aortic valve implantation](#)

基金项目:

作者	单位	E-mail
马跃	中国医科大学附属盛京医院放射科,辽宁 沈阳 110004	
侯阳	中国医科大学附属盛京医院放射科,辽宁 沈阳 110004	
郭启勇	中国医科大学附属盛京医院放射科,辽宁 沈阳 110004	guoqy@sj-hospital.org

摘要点击次数: 955

全文下载次数: 514

中文摘要:

近年来,经导管主动脉瓣植入术(TAVI)为临床治疗外科手术禁忌的重度高危主动脉瓣狭窄提供了新的选择。治疗前全方位评估患者心脏和大血管的解剖有助于选择合适的TAVI手术方式、降低手术风险。MSCT具有高时间分辨率、高空间分辨率及单次即可完成大范围覆盖扫描等优点,可为TAVI提供更全面的信息。本文对MSCT在TAVI术前评估及术后随访中的应用予以综述。

英文摘要:

Over the past few years, transcatheter aortic valve implantation (TAVI) has developed into an alternative treatment for high-risk severe aortic stenosis patients without surgical operation. Comprehensive assessment of the heart and great vessels anatomy before operation is helpful to select the appropriate procedures and to reduce the risk of TAVI. MSCT has high temporal resolution, spatial resolution and wide range coverage of single scanning, which can provide more comprehensive information for TAVI. The application of MSCT in TAVI preprocedural planning and follow-up evaluation were reviewed in this article.

[查看全文](#) [查看/发表评论](#) [下载PDF阅读器](#)

参考文献(共24条):

- [1] Leon MB, Smith CR, Mack M, et al. Transcatheter aortic-valve implantation for aortic stenosis in patients who cannot undergo surgery. *N Engl J Med*, 2010,363(17):1597-1607.
- [2] Lababidi Z, Wu JR, Walls JT, et al. Percutaneous balloon aortic valvuloplasty: Results in 23 patients. *Am J Cardiol*, 1984,53(1):194-197.
- [3] Andersen HR, Knudsen LL, Hasenkam JM, et al. Transluminal implantation of artificial heart valves. Description of a new expandable aortic valve and initial results with implantation by catheter technique in closed chest pigs. *Eur Heart J*, 1992,13(5):704-708.
- [4] Cribier A, Eltchaninoff H, Bash A, et al. Percutaneous transcatheter implantation of an aortic valve prosthesis for calcific aortic stenosis: First human case description. *Circulation*, 2002,106(24):3006-3008.
- [5] Sinning JM, Werner N, Nickenig G, et al. Next-generation transcatheter heart valves: Current trials in Europe and the USA. *Methodist Debakey Cardiovasc J*, 2012,8(2):9-12.
- [6] Forbes TL. The PARTNER trial. *J Vasc Surg*, 2010,53(1):239-240.
- [7] Piazza N, Lange R, Martucci G, et al. Patient selection for transcatheter aortic valve implantation: Patient risk profile and anatomical selection criteria. *Arch Cardiovasc Dis*, 2012,105(3):165-173.
- [8] Achenbach S, Delgado V, Hausleiter J, et al. SCCT expert consensus document on computed tomography imaging before transcatheter aortic valve implantation (TAVI)/transcatheter aortic valve replacement (TAVR). *J Cardiovasc Comput Tomogr*, 2012,6(6):366-380.
- [9] Schoenhagen P, Hausleiter J, Achenbach S, et al. Computed tomography in the evaluation for transcatheter aortic valve implantation (TAVI). *Cardiovasc Diagn Ther*, 2011,1(1):44-56.
- [10] Lehmkuhl L, Foldyna B, Haensig M, et al. Role of preprocedural computed tomography in transcatheter aortic valve implantation. *Rofo*, 2013,185(10):941-949.
- [11] Leipsic J, Gurvitch R, Labounty TM, et al. Multidetector computed tomography in transcatheter aortic valve implantation. *JACC Cardiovasc Imaging*, 2011,4(4):416-429.
- [12] Reynolds MR, Magnuson EA, Wang K, et al. Health-related quality of life after transcatheter or surgical aortic valve replacement in high-risk patients with severe aortic stenosis: Results from the PARTNER (Placement of AoRTic TraNscatheter Valve) Trial (Cohort A). *J Am Coll Cardiol*, 2012,60(6):548-558.
- [13] Apfaltrer P, Henzler T, Blanke P, et al. Computed tomography for planning transcatheter aortic valve replacement. *J Thorac Imaging*, 2013,28(4):231-239.
- [14] Schoenhagen P, Kapadia SR, Halliburton SS, et al. Computed tomography evaluation for transcatheter aortic valve implantation (TAVI): Imaging of the aortic root and iliac arteries. *J Cardiovasc Comput Tomogr*, 2011,5(5):293-300.
- [15] Willson AB, Webb JG, Labounty TM, et al. 3-dimensional aortic annular assessment by multidetector computed tomography predicts moderate or severe paravalvular regurgitation after transcatheter aortic valve replacement: A multicenter retrospective analysis. *J Am Coll Cardiol*, 2012,59(14):1287-1294.
- [16] Feuchtner G, Plank F, Bartel T, et al. Prediction of paravalvular regurgitation after transcatheter aortic valve implantation by computed tomography: Value of aortic valve and annular calcification. *Ann Thorac Surg*, 2013,96(5):1574-1580.
- [17] Masson JB, Kovac J, Schuler G, et al. Transcatheter aortic valve implantation: Review of the nature, management, and avoidance of procedural complications. *JACC Cardiovasc Interv*, 2009,2(9):811-820.
- [18] Bleiziffer S, Ruge H, Horer J, et al. Predictors for new-onset complete heart block after transcatheter aortic valve implantation. *JACC Cardiovasc Interv*, 2010,3(5):524-530.

- [19] Delgado V, Ng AC, van de Veire NR, et al. Transcatheter aortic valve implantation: Role of multi-detector row computed tomography to evaluate prosthesis positioning and deployment in relation to valve function. *Eur Heart J*, 2010,31(9):1114-1123.
- [20] Hildick-Smith D, Redwood S, Mullen M, et al. Complications of transcatheter aortic valve implantation: Avoidance and management. *EuroIntervention*, 2011,7(5):621-628.
- [更多...](#)

相似文献(共20条):

- [1] 尹哲.经导管主动脉瓣置入术临床应用[J].心血管病学进展,2010,31(3):419-422.
- [2] 张瑛,倪文文,李金宝.经导管主动脉瓣植入术的麻醉管理[J].国际麻醉学与复苏杂志,2013,34(1):45-48.
- [3] 郭丽娜,施仲伟.经导管Edwards-Sapien主动脉瓣植入术临床应用[J].国际心血管病杂志,2011,38(4).
- [4] 陈茂,冯沅,唐红,魏薪,赵振刚,徐原宁,廖延标,黄德嘉.经导管主动脉瓣植入术治疗重度主动脉瓣狭窄患者的初步经验[J].中国介入心脏病学杂志,2014(9):558-562.
- [5] 刘盈盈,李卫萍,陆清声,张勇学.超声心动图在主动脉瓣狭窄经导管主动脉瓣植入术中的应用价值[J].岭南心血管病杂志,2012,18(4):380-383.
- [6] Ge JB,Zhou DX,Pan WZ,Guan LH,Yao K.经导管主动脉瓣置入术的初步经验[J].中华心血管病杂志,2011,39(11):989-992.
- [7] 刘宏亮,赵忠,张杨杨.经导管主动脉瓣膜植入术的可选瓣膜植入途径[J].中国医学文摘·外科学分册英文版,2014(3):207-211.
- [8] 邓茗丹,魏薪,唐红,等.超声心动图在主动脉瓣反流患者经心尖主动脉瓣植入术中的应用[J].四川大学学报(医学版),2017,48(6):941-945.
- [9] 郑明霞,杨洋,辜桃,李晓燕,秦容,曾义,冯明华,游桂英.经导管主动脉瓣置入术中的护理[J].华西医学,2012(8):1234-1236.
- [10] 陈翔,秦永文.经导管主动脉瓣置换术的新进展[J].临床心血管病杂志,2012(8):566-569.
- [11] 杨洁,李莹莹,仲怀凤,管玉珍.经导管主动脉瓣置入术治疗重度主动脉瓣狭窄患者的护理[J].实用临床医药杂志,2015,19(10).
- [12] W.Wuest,K.Anders,A.Schuhbaeck,M.S.May,S.Gauss,M.Marwan,袁友红.双源多层CT高螺距采集模式血管成像在经导管主动脉瓣植入术(TAVI)的应用[J].国际医学放射学杂志,2012(2):189-190.
- [13] 殷伟贤,李永在,魏峰.经导管主动脉瓣膜植入术:进展与现状[J].中国心血管杂志,2014(5):338-340.
- [14] 程茂波,史新立,苗晶晶,刘威,聂飞龙.经导管植入式主动脉人工心脏瓣膜临床试验初步建议[J].中国药物警戒,2014(10):628-631.
- [15] 杨玉,李榕彬,刘春雪.经导管主动脉瓣置换术患者二例的护理[J].解放军护理杂志,2012,29(6):37-39.
- [16] 郑明霞,秦容,曾义,辜桃,李晓燕,冯明华,杨洋.24例经导管主动脉瓣植入术中并发症的观察及护理[J].护理学报,2014(3):48-50.
- [17] 赵强,张瑞岩,王哲,杨震坤,张奇,孙延军,顾刚,张富军,沈卫峰.经主动脉途径植入主动脉支架瓣膜一例报道[J].上海交通大学学报(医学版),2013(11):1553-1554.
- [18] 黄海涛.经导管主动脉瓣膜植入手术研究进展[J].中国医学文摘·外科学分册英文版,2012(1).
- [19] Wang JM,Yang J,Yang LF,Zhang XX,Hu Y,Liu JC,Yu SQ,Yi DH.应用新型介入瓣膜行经导管主动脉瓣置入术的实验研究[J].中华心血管病杂志,2011,39(11):1005-1010.
- [20] 孔祥清.经导管主动脉瓣植入现状和进展[J].中华心血管病杂志,2009,37(11).

您是第**17343610**位访问者

版权所有 : 《中国医学影像技术》期刊社

主管单位 : 中国科学院 主办单位 : 中国科学院声学研究所

地址 : 北京市海淀区北四环西路21号大猷楼502室 邮政编码 : 100190 电话 : 010-82547901/2/3 传真 : 010-82547903

京ICP备12000849号-1

本系统由北京勤云科技发展有限公司设计