

·综述·

心血管病患者生存质量评估方法及康复治疗的影响*

傅丽媛^{1,2} 郭琪^{1,2,3} 曲博轩² 张沛雯² 安东²

心血管病(cardiovascular diseases, CVD)在许多国家仍是主要的健康问题。我国人群CVD的发病率和病死率处于持续上升阶段,目前全国有2.3亿CVD患者,在所有死亡原因中CVD占总死亡原因的41%,居于死因第一位^[1]。CVD使患者生活成本增加,生存质量(quality of life, QOL)下降^[2],同时也使他们直接或间接的产生焦虑、抑郁等心理疾病^[3-4],患者心理上对恢复健康失去信心,从而延长CVD的恢复进程及平均住院时间^[5]。CVD康复是CVD治疗的一项重要的干预措施,全面的康复不仅改善了患者身体活动和生存质量,降低医疗成本^[6],而且进行生活方式干预,能降低CVD风险因素,从而改善他们的QOL^[7]。因此,正确评估患者的QOL水平,并针对患者的QOL情况进行改善是康复治疗的重要目标之一。

1 CVD患者QOL评价内容与方法

CVD患者QOL评价内容包括:①身体健康评估(疼痛、虚脱、疲劳、睡眠障碍等自觉症状的有无与整体活动能力的有无);②精神状况评估(忧郁、不安、精神不振等);③社会健康评估(家庭、地区、社会交往等方面的能力)等3方面。

1.1 评估CVD患者QOL的量表

临幊上评估CVD患者QOL的量表有:AQOL-4D(the assessment of quality of life)、EQ-5D(EuroQOL)、MOS(medical outcomes study) SF-36、NHP(nottingham health profile)、WHOQOL、MLHF(Minnesota living with heart failure)、Vascular QOL等量表。目前我国临幊上常用的QOL量表有EQ-5D和SF-36量表。

1.1.1 AQOL-4D量表:AQOL-4D用于评估健康相关生存质量(HRQOL),最初用于增强多属性测量的灵敏度,它包含多个健康子维度(独立生活、社会关系、物理感官、心理健康和疾病),各维度之间相互独立,且同时具有高度敏感性^[8]。AQOL-4D同时也应用于心理健康^[9]和心脏疾病人群^[10]。

1.1.2 EQ-5D量表:EQ-5D包括五个维度,行动能力、自我照顾能力、日常活动能力、疼痛或不舒服、焦虑或抑郁。定义总

共243种可能的健康状态,每种健康状态对应0.59—1.00之间一个效用值。EQ-5D结构明晰,易于操作,用于评价与心血管疾病相关的QOL^[11],尤其是对冠心病的评价^[12]。对于年龄较高、文化程度较低的调查人群,EQ-5D适用性较高^[13]。

1.1.3 MOS SF-36量表:该量表是美国波士顿健康研究所研制开发的一个普适性测定量表。量表包含躯体功能、躯体角色、肌体疼痛、总的健康状况、活力、社会功能、情绪角色和心理卫生8个领域^[14]。SF-36量表可用于评估CVD患者的QOL^[4,15],例如冠心病^[16]、心衰患者的QOL^[17]。浙江大学医学院社会医学教研室完成了中文版SF-36的翻译及性能测试工作^[18]。

1.1.4 NHP量表:诺丁汉健康调查量表(NHP)用于评价个人对卫生保健的需求和保健的效果,共45条。内容包括个人在(睡眠、躯体活动、精力、疾病、情绪反应和社会孤独感)6个方面和日常生活活动(职业、家务、社会生活、家庭生活、性活动、嗜好和休假)7个方面^[19]。该量表是国际上公认的信度、效度、敏感度均较好的生存质量量表,是广泛应用于评价各类疾病QOL的普适性量表,可用于冠心病^[20]、心脏移植^[21]的QOL评估。

1.1.5 WHOQOL-100量表:该量表是世界卫生组织制定的,适用于一般人群的普适性量表。量表由6个领域的24个方面构成。每个方面由4个条目构成,分别从强度、频度、能力、评价四方面反映同一特质^[22],目前已研制含26个条目的简版。WHOQOL可用于心脏移植患者的QOL评估^[23]。

1.1.6 MLHF量表:MLHF由美国明尼苏达大学于1987年开发,涉及21个条目,是衡量循环系统疾病QOL的代表性作品,用于评价心力衰竭患者的QOL^[24]。我国有研究应用该量表进行了适用性评价^[25],监测结果表明该量表重测信度高,反应性良好,效度良好,可用于国内慢性心力衰竭患者QOL的评估。

1.1.7 Vascular QOL量表:Vascular QOL量表是专用于评估外周动脉疾病(peripheral arterial disease, PAD)的疾病特定血管QOL评分工具,包括活动、症状、疼痛、情绪、社会等5

DOI:10.3969/j.issn.1001-1242.2017.04.019

*基金项目:滨海新区卫生局重点支持项目(2014BKWZ003)

1 泰达国际心血管病医院康复医学科,天津,300457; 2 天津医科大学康复与运动医学系; 3 通讯作者

作者简介:傅丽媛,女,在读硕士研究生; 收稿日期:2015-12-21

个部分,分值从1分(最坏)到7分(最好)^[26]。通常与SF-36量表结合使用,反应患者因功能受限导致的QOL水平^[27]。

2 CVD康复治疗对QOL的影响

CVD康复除运动疗法外,还包括压力管理、心理疗法、行为修正的干预等治疗方法,可对冠心病、慢性心力衰竭、心脏移植、外周动脉疾病患者进行干预,使其QOL得到很好的改善。

2.1 冠心病(coronary artery disease, CAD)、冠状动脉搭桥(coronary-artery bypass grafting, CABG)手术后

CAD患者术后改善QOL的康复治疗,包括运动疗法、生活方式干预等干预方案。对于冠心病有氧训练的研究比较完善,临幊上康复治疗对于有氧运动的应用也比较广泛。越来越多的临幊研究达成共识,运动训练有改变心肌梗死后心肌重塑过程和改善心功能的作用^[28]。

冠心病患者进行运动疗法,一般在手术4—8周后开始,3次/周,25—40min/次,65%—75%最大心率^[29]或50%—80%最大摄氧量强度^[16]的有氧运动训练,进行8—12周,通过SF-36量表的评估,康复治疗后患者QOL有明显改善。同时,也有研究认为高强度的有氧训练比传统运动处方(中等强度运动)更能改善患者的QOL。因此报告对高强度有氧间歇训练(aerobic interval training, AIT)与中等强度持续训练(moderate continuous training, MCT)对于QOL改善效果进行了比较^[30]。结果显示,两组均出现QOL持续性改善效果,但AIT比MCT在最大摄氧量的改善方面更具优势。此外,运动疗法不仅可以改善患者的生理状态,同时可以有效改善导致低QOL的焦虑和抑郁情绪^[31]。

在患者从门诊治疗转移至居家康复的过程中,对患者增加1次/周共8次的CVD危险因素教育很有必要,不仅使患者更为重视自己的生活习惯,降低了CVD的危险因素,从而明显改善了患者的QOL^[32]。

2.2 慢性心力衰竭

慢性心力衰竭康复治疗效果的研究在近些年來较为多见,一项为期10年的随机对照实验显示,长期规律的运动训练可明显改善心衰患者的循环系统功能,增强心脏功能能力,持续改善患者QOL,并且减少了再入院率和病死率^[33]。

慢性心力衰竭运动疗法大部分适用于NYHA II—III级的慢性心力衰竭患者^[34]。运动方式多为有氧运动(慢跑、步行、自行车),运动强度在60%—70%峰值VO₂,或者55%—80%的心率储备^[35—36],可以使SF-36量表评估的低QOL得到改善。Berkhuyzen等^[37]的研究发现高频次(10次/周)有氧运动比低频次(2次/周)有氧运动更能改善慢性心力衰竭患者QOL、心理压力和身体健康,高频次的运动训练可能会得到更好的QOL改善效果。

对于慢性心力衰竭患者来说除了传统的有氧运动外,还可根据患者实际情况添加其他相关的治疗措施。增加关节活动度训练和呼吸训练,使得患者不仅改善了QOL,还改善了抑郁情绪^[38]。如果在训练8周后增加肌肉力量训练,并且每周少量的增加运动强度,不仅加速改善患者的身体状况,同时增强患者自信,减轻了患者的抑郁情绪,改善心理健康方面的QOL^[38]。

对于慢性心力衰竭患者的康复治疗,可采用高频次有氧运动疗法,同时可增加关节活动度训练、呼吸训练、肌力训练、心理疗法等,来改善患者QOL。

2.3 心脏移植患者

目前对于心脏移植患者的康复治疗还处于研究阶段,较为有限。一项运动疗法干预的随机对照试验,对受试者进行了15—20min的60%—70%最大摄氧量步行练习,每周至少3次,进行8周,通过简式WHOQOL量表评估,实验前后对比显示患者的QOL有明显改善^[33]。根据进一步对运动治疗的研究,心脏移植患者运动强度比CABG患者低,进行频次和时间相同,心脏移植患者QOL改善与CABG患者相似,且心脏移植患者在身体功能方面的QOL改善明显^[16]。因此,针对心脏移植患者的运动处方设置,可以借鉴CABG患者的运动治疗方案,将其中运动强度设置在较低水平,可能达到一定的改善效果。同时可适当进行低强度的肌肉力量和耐力训练,帮助患者改善移植后的循环系统功能。

2.4 外周动脉疾病(PAD)

临床研究为PAD患者运动训练方法的确定提供参考,一般对于PAD患者的康复治疗是进行步行运动。以典型间歇性跛行的PAD患者为对象,将运动疗法(3次/周,至少30min/次的步行训练)与血管再生术效果进行比较,显示在PAD患者中,运动疗法与血管再生术可产生同样的步行距离和QOL的改善^[39],可能会成为血管再生术的代替治疗方案。另外,有报告指出血管再生术后进行运动疗法,QOL能得到更为显著的改善^[27]。Jakubsevičienė等^[40]的研究表明,实验组手术后6个月在监护下进行康复训练比对照组无监护下的锻炼更能明显改善PAD患者的步行距离和QOL,建议有条件的患者最好在专业设施内接受康复治疗。但值得注意的是,美国心脏协会推荐在运动训练前先进行平板功能测试,以评价患者行走能力以及运动受限程度,然后制定相应的运动处方^[41]。

3 小结

CVD康复可以提高CVD患者的QOL,且QOL的改善与运动训练的增加有相互作用关系,从而进一步提高身体功能方面的QOL,减少再入院率和病死率。同时,适当的添加肌肉力量训练、呼吸训练、心血管病危险因素教育、心理疗法

等,能促进改善患者心理、社会健康,从而使CVD患者QOL水平提高。

参考文献

- [1] 姚震,陈林. 我国心血管疾病现状与展望[J]. 海南医学,2013,24(13):1873—1876.
- [2] Pandya A, Gaziano TA, Weinstein MC, et al. More Americans living longer with cardiovascular disease will increase costs while lowering quality of life[J]. Health Affairs, 2013, 32(10):1706—1714.
- [3] Allenby A, Kinsman L, Tham R, et al. The quality of cardiovascular disease prevention in rural primary care[J]. The Australian Journal of Rural Health. 2015.
- [4] Rodrigues GH, Gebara OC, Gerbi CC, et al. Depression as a Clinical Determinant of Dependence and Low Quality of Life in Elderly Patients with Cardiovascular Disease[J]. Arquivos Brasileiros de Cardiologia. 2015.
- [5] Hulzebos EH, Helders PJ, Favie NJ, et al. Preoperative intensive inspiratory muscle training to prevent postoperative pulmonary complications in high-risk patients undergoing CABG surgery: a randomized clinical trial[J]. JAMA, 2006, 296(15):1851—1857.
- [6] A Chatziefstratiou A, Giakoumidakis K, Brokalaki H. Cardiac rehabilitation outcomes: modifiable risk factors[J]. British Journal of Nursing, 2013,22(4):200—207.
- [7] Jonsson B. A 3-year lifestyle intervention for adults at moderate to high risk of cardiovascular disease is cost effective when added to standard care and improves physical health-related quality of life[J]. Evidence-based Medicine, 2011,16(3):70—71.
- [8] Hawthorne G, Richardson J, Osborne R. The Assessment of Quality of Life (AQoL) instrument: a psychometric measure of health-related quality of life[J]. Quality of Life Research, 1999,8(3):209—224.
- [9] O'Neil A, Stevenson CE, Williams ED, et al. The health-related quality of life burden of co-morbid cardiovascular disease and major depressive disorder in Australia: findings from a population-based, cross-sectional study[J]. Quality of Life Research, 2013,22(1):37—44.
- [10] Cheok F, Schrader G, Banham D, et al. Identification, course, and treatment of depression after admission for a cardiac condition: rationale and patient characteristics for the Identifying Depression As a Comorbid Condition (IDACC) project[J]. American Heart Journal, 2003,146(6):978—984.
- [11] Lut S, Wensing M, Szecsenyi J, et al. Predictors of health-related quality of life in patients at risk for cardio-vascular disease in European primary care[J]. PloS One, 2011,6(12):e29334.
- [12] De Smedt D, Clays E, Annemans L, et al. Health Related quality of life in coronary patients and its association with their cardiovascular risk profile: results from the EU-ROASPIRE III survey[J]. International Journal of Cardiology, 2013,168(2):898—903.
- [13] 韩月蓉,吴晶,丛洪良,等. EQ-5D 和 SF-6D 对中国稳定性心绞痛患者应用的效度和灵敏度评价[J]. 中国卫生统计,2013,12:829—832.
- [14] Ware JE Jr, Sherbourne CD. The MOS 36-item short-form health survey (SF-36). I. Conceptual framework and item selection[J]. Medical Care, 1992,30(6):473—483.
- [15] Clennin MN, Payne JP, Rienzi EG, et al. Association between Cardiorespiratory Fitness and Health-Related Quality of Life among Patients at Risk for Cardiovascular Disease in Uruguay[J]. PloS One, 2015,10(4):e0123989.
- [16] Hsu CJ, Chen SY, Su S, et al. The effect of early cardiac rehabilitation on health-related quality of life among heart transplant recipients and patients with coronary artery bypass graft surgery[J]. Transplantation Proceedings, 2011,43(7):2714—2717.
- [17] Uchmanowicz I, Gobbens RJ. The relationship between frailty, anxiety and depression, and health-related quality of life in elderly patients with heart failure[J]. Clinical Interventions in Aging, 2015,10:1595—1600.
- [18] 李鲁,王红妹,沈毅. SF-36 健康调查量表中文版的研制及其性能测试[J]. 中华预防医学杂志,2002,36:109—113.
- [19] Jenkinson C, Fitzpatrick R, Argyle M. The Nottingham Health Profile: an analysis of its sensitivity in differentiating illness groups[J]. Social Science & Medicine, 1988,27(12):1411—1414.
- [20] Lukkarinen H, Hentinen M. Assessment of quality of life with the Nottingham Health Profile among patients with coronary heart disease[J]. Journal of Advanced Nursing, 1997,26(1):73—84.
- [21] O'Brien BJ, Banner NR, Gibson S, et al. The Nottingham Health Profile as a measure of quality of life following combined heart and lung transplantation[J]. Journal of Epidemiology and Community Health, 1988,42(3):232—234.
- [22] Power M, Harper A, Bullinger M. The World Health Organization WHOQOL-100: tests of the universality of Quality of Life in 15 different cultural groups worldwide[J]. Health psychology : official journal of the Division of Health Psychology, American Psychological Association, 1999,18(5):495—505.
- [23] Wu YT, Chien CL, Chou NK, et al. Efficacy of a home-

- based exercise program for orthotopic heart transplant recipients[J]. *Cardiology*, 2008,111(2):87—93.
- [24] Morcillo C, Aguado O, Delas J, et al. Utility of the Minnesota living with heart failure questionnaire for assessing quality of life in heart failure patients[J]. *Revista Espanola de Cardiologia*, 2007,60(10):1093—1096.
- [25] 奚悦文,范维琥. 明尼苏达心力衰竭生活质量调查表适用性的评价[J]. 上海医学,2004,27(4):222—225.
- [26] Morgan MB, Crayford T, Murrin B, et al. Developing the Vascular Quality of Life Questionnaire: a new disease-specific quality of life measure for use in lower limb ischemia [J]. *Journal of Vascular Surgery*, 2001,33(4):679—687.
- [27] Fakhry F, Spronk S, van der Laan L, et al. Endovascular Revascularization and Supervised Exercise for Peripheral Artery Disease and Intermittent Claudication: A Randomized Clinical Trial[J]. *JAMA*, 2015,314(18):1936—1944.
- [28] Garza MA, Wason EA, Zhang JQ. Cardiac remodeling and physical training post myocardial infarction[J]. *World Journal of Cardiology*, 2015,7(2):52—64.
- [29] Jolly K, Lip GY, Taylor RS, et al. The Birmingham Rehabilitation Uptake Maximisation study (BRUM): a randomised controlled trial comparing home-based with centre-based cardiac rehabilitation[J]. *Heart*, 2009,95(1):36—42.
- [30] Moholdt TT, Amundsen BH, Rustad LA, et al. Aerobic interval training versus continuous moderate exercise after coronary artery bypass surgery: a randomized study of cardiovascular effects and quality of life[J]. *American Heart Journal*, 2009,158(6):1031—1037.
- [31] Milani RV, Lavie CJ, Mehra MR, et al. Impact of exercise training and depression on survival in heart failure due to coronary heart disease[J]. *The American Journal of Cardiology*, 2011,107(1):64—68.
- [32] Saeidi M, Mostafavi S, Heidari H, et al. Effects of a comprehensive cardiac rehabilitation program on quality of life in patients with coronary artery disease[J]. *ARYA Atherosclerosis*, 2013,9(3):179—185.
- [33] Belardinelli R, Georgiou D, Cianci G, et al. 10-year exercise training in chronic heart failure: a randomized controlled trial[J]. *Journal of the American College of Cardiology*, 2012,60(16):1521—1528.
- [34] Ades PA, Keteyian SJ, Balady GJ, et al. Cardiac rehabilitation exercise and self-care for chronic heart failure[J]. *JACC Heart Failure*, 2013,1(6):540—547.
- [35] Karapolat H, Demir E, Bozkaya YT, et al. Comparison of hospital-based versus home-based exercise training in patients with heart failure: effects on functional capacity, quality of life, psychological symptoms, and hemodynamic parameters[J]. *Clinical Research in Cardiology*, 2009,98(10):635—642.
- [36] Mehani SH. Correlation between changes in diastolic dysfunction and health-related quality of life after cardiac rehabilitation program in dilated cardiomyopathy[J]. *Journal of Advanced Research*, 2013,4(2):189—200.
- [37] Berkhuyzen MA, Nieuwland W, Buunk BP, et al. Effect of high- versus low-frequency exercise training in multidisciplinary cardiac rehabilitation on health-related quality of life [J]. *Journal of Cardiopulmonary Rehabilitation*, 1999,19(1):22—28.
- [38] Smart NA, Murison R. Rate of change in physical fitness and quality of life and depression following exercise training in patients with congestive heart failure[J]. *Congestive Heart Failure*, 2013,19(1):1—5.
- [39] Fakhry F, Rouwet EV, den Hoed PT, et al. Long-term clinical effectiveness of supervised exercise therapy versus endovascular revascularization for intermittent Claudication from a Randomized clinical trial[J]. *The British Journal of Surgery*, 2013,100(9):1164—1171.
- [40] Jakubsevičienė E, Vasiliauskas D, Velička L, et al. Effectiveness of a new exercise program after lower limb arterial blood flow surgery in patients with peripheral arterial disease:a randomized clinical trial[J]. *Int J Environ Res Public Health*, 2014,11(8):7961—7976.
- [41] American College of Cardiology F, American Heart Association Task F, Society for Cardiovascular A, et al. 2011 ACCF/AHA focused update of the guideline for the management of patients with peripheral artery disease (updating the 2005 guideline)[J]. *Vascular Medicine*, 2011,16(6):452—476.