

· 临床研究 ·

综合性康复治疗对老年头颈部肿瘤患者放疗后生活质量的影响

王剑锋¹, 宗敏茹², 刘大海^{3*}

(吉林大学中日联谊医院: ¹放疗科, ²康复科, ³淋巴血管外科, 长春 130033)

【摘要】目的 探讨综合性康复治疗对老年头颈部肿瘤患者放疗后情绪、营养状况和生活质量的影响。**方法** 选取2015年6月至2017年6月在吉林大学中日联谊医院放疗科完成放疗的老年头颈部肿瘤患者62例,采用随机数字表法分为康复组($n=31$)和对照组($n=31$)。对照组接受常规健康咨询和随访;康复组在此基础上接受包括心理疏导、体力锻炼、吞咽训练和营养干预的综合性康复治疗。在放疗结束和放疗后6个月时,2组患者均接受老年抑郁量表(GDS)、微型营养评估简表(MNA-SF)和生活质量调查表(QLQ-C 30)评价。采用SPSS 19.0统计软件进行统计分析,计量资料以均数 $\pm$ 标准差表示,组间比较采用 t 检验,计数资料以例数(百分率)表示,组间比较采用 χ^2 检验。**结果** 放疗结束时,2组患者GDS、MNA-SF、QLQ-C 30评分差异均无统计学意义。放疗后6个月时,康复组的GDS评分[(7.35 $\pm$ 1.75) *vs* (10.20 $\pm$ 1.94)],MNA-SF评分[(10.85 $\pm$ 3.23) *vs* (9.56 $\pm$ 4.21)]和QLQ-C 30评分[(57.84 $\pm$ 9.57) *vs* (49.73 $\pm$ 10.01)]均明显优于对照组($P<0.05$);而对照组MNA-SF评分较放疗结束时明显改善[(9.56 $\pm$ 4.21) *vs* (8.24 $\pm$ 4.05)], $P<0.05$ 。**结论** 综合性康复治疗可更有效改善老年头颈部患者放疗后的抑郁状态和营养状况,提高患者的生活质量。

【关键词】 头颈部肿瘤;老年;康复;生活质量

【中图分类号】 R493;R592

【文献标志码】 A

【DOI】 10.11915/j.issn.1671-5403.2018.06.093

Effect of comprehensive rehabilitation treatment on quality of life in elderly patients with head and neck cancer after radiotherapy

WANG Jian-Feng¹, ZONG Min-Ru², LIU Da-Hai^{3*}

(¹Department of Radiotherapy, ²Department of Rehabilitation Medicine, ³Department of Lymphatic Vascular Surgery, China-Japan Union Hospital of Jilin University, Changchun 130033, China)

【Abstract】Objective To determine the effect of comprehensive rehabilitation treatment on emotion, nutritional status, and quality of life in elderly patients with head and neck cancer after radiotherapy. **Methods** A total of 62 elderly patients with head and neck cancer completing radiotherapy in our hospital from June 2015 to June 2017 were enrolled in this study. They were randomly divided into rehabilitation group ($n=31$) and control group ($n=31$). The patients from the both groups were given routine healthy counseling and follow-up, while those of the former group were additionally provided with comprehensive rehabilitation treatment, including psychological counseling, physical exercise, swallowing training and nutrition intervention. They were assessed with geriatric depression scale (GDS), mini-nutritional assessment short-form (MNA-SF), quality of life questionnaire-core 30 (QLQ-C 30) immediately after radiotherapy and 6 months after radiotherapy. SPSS statistics 19.0 was used for data analysis. The measurement data were expressed as mean $\pm$ standard deviation, and Student's t test was employed for the comparison between groups. **Results** There were no statistical differences in scores of GDS, MNA-SF and QLQ-C 30 immediately after radiotherapy. At 6 months after radiotherapy, the scores of GDS[(7.35 $\pm$ 1.75) *vs* (10.20 $\pm$ 1.94)], MNA-SF[(10.85 $\pm$ 3.23) *vs* (9.56 $\pm$ 4.21)] and QLQ-C 30[(57.84 $\pm$ 9.57) *vs* (49.73 $\pm$ 10.01)] in the rehabilitation group were all significantly better than those in control group ($P<0.05$). The score of MNA-SF in the control group was significantly better than that immediately after radiotherapy[(9.56 $\pm$ 4.21) *vs* (8.24 $\pm$ 4.05)], $P<0.05$. **Conclusion** Comprehensive rehabilitation treatment can more significantly improve the depressive status, nutritional status and quality of life in the elderly patients with head and neck cancer after radiotherapy.

【Key words】 head and neck neoplasm; aged; rehabilitation; quality of life

收稿日期: 2018-01-31; 修回日期: 2018-03-20

基金项目: 吉林省自然科学基金(20160101344JC)

宗敏茹,为共同第一作者

通信作者: 刘大海, E-mail: radiotion1978@163.com

This work was supported by the Natural Science Foundation of Jilin Province (20160101344JC).

WANG Jian-Feng and ZONG Min-Ru are co-first authors who contributed equally to this work.

Corresponding author: LIU Da-Hai, E-mail: radiation1978@163.com

老年头颈部肿瘤患者经常面对抑郁、癌性疲乏、吞咽障碍等问题,导致其社会活动减少、营养状况恶化及生活质量下降^[1,2]。随着医疗技术的进步,肿瘤患者的生存时间延长,康复治疗对提高患者的生活质量发挥着越来越重要的作用^[3]。国内外研究多集中在手术、放疗、化疗等临床治疗上,关注于局控率和生存率,但对离院后康复治疗的研究和报道较少。本研究采用包括心理疏导、体力锻炼、吞咽训练和营养干预的综合性康复治疗,旨在探讨综合性康复治疗对老年头颈部肿瘤患者放疗后生活质量的影响,为医疗工作提供依据。

1 对象与方法

1.1 研究对象

选取2015年6月至2017年6月于吉林大学中日联谊医院放疗科完成根治性放射治疗的老年头颈部肿瘤患者62例。纳入标准:(1)病理证实为鳞癌;(2)年龄 ≥ 60 岁;(3)美国东部肿瘤协作组(eastern cooperative oncology group, ECOG)评分 ≤ 2 分;(4)认知功能评分(mini-mental state examination, MMSE) ≥ 27 分,能正确理解和回答问卷。排除标准:(1)严重心脑血管并发症;(2)有心理疾病或精神疾病;(3)不能经口进食或有严重胃肠道疾病。采用随机数字表法将患者分为康复组($n=31$)和对照组($n=31$)。本研究经吉林大学中日联谊医院伦理委员会批准,所有患者均签署书面知情同意书。2组患者在性别、年龄、病种、分期、婚姻状况、文化程度和家庭收入等方面差异无统计学意义($P>0.05$;表1)。

1.2 方法

对照组接受常规健康教育和随访,在康复组建立由医师、护士、康复治疗师和营养师组成的康复治疗研究小组,在常规健康教育基础上给予患者包括心理疏导、体力锻炼、吞咽训练和营养干预的综合性康复治疗。

1.2.1 心理疏导 由接受心理培训的医师倾听患者的困难和诉求,采用“共情”方法疏解患者紧张和悲观情绪;同时向患者讲授康复和保健知识,每周1次,每次30 min,连续6个月。建立包括医师、患者和家属的微信群,利用微信公众号传播健康知识,促进患者之间的交流,介绍自身康复经验。

表1 2组患者的一般资料比较

Table 1 Comparison of baseline data between two groups ($n=31$)

Item	Rehabilitation group	Control group
Gender (male/female, n)	20/11	18/13
Age (years, $\bar{x} \pm s$)	67.5 $\pm$ 7.6	68.3 $\pm$ 8.6
Marriage (married/widowed, n)	24/7	25/6
Education (below junior high school/ junior high school and above, n)	19/12	21/10
Annual family income ($< \text{¥} 100\,000 / > \text{¥} 100\,000$, n)	24/7	22/9
Tumor type (n)		
Laryngeal cancer	6	7
Oropharyngeal cancer	6	4
Nasopharyngeal carcinoma	5	7
Oral cancer	5	6
Hypopharyngeal carcinoma	4	3
Others	5	4
Tumor staging (n) *		
I	4	3
II	7	6
III	14	15
IV	6	7

* According to the Union for International Cancer Control staging system (7th Edition, 2010)

1.2.2 体力锻炼 由康复治疗师根据患者的身体情况,制定个体化的体力训练方案,采用慢跑、哑铃操、太极拳等方法帮助患者进行耐力、阻力和协调性的锻炼,每周2次,每次60 min,连续6个月,并鼓励患者每天进行30 min中等强度(如快走等)的户外运动。

1.2.3 吞咽训练和营养干预 由接受过吞咽功能培训的护士对患者进行吞咽训练,内容包括:通过训练唇(撅嘴、抿唇、做吸管吸气运动),舌(舌后卷外伸、舌在口腔内做各个方向的运动,并用压舌板以适当力度抵抗运动),下颌(下颌向下、前、左、右运动至极限位置,再缓慢恢复至原位)和喉(声门上吞咽、Masako训练法、Mendelsohn训练法)等结构,提高咽喉肌群、关节的运动能力,促进食团从口腔向咽部运动,并增加食管括约肌开放。每日1次,每次30 min,连续6个月。由营养师对患者和家属进行营养教育,根据患者每日能量和蛋白质摄入量,建立个体化饮食方案,每周1次,每次30 min,连续6个月。目标需要量为总供能6~7 kJ/(kg·d),总蛋白1.2~1.5 g/(kg·d)。若饮食摄入未达标则给予口服营养补充治疗达到目标需要量。

1.3 评价工具

在放疗结束时和放疗后6个月时,分别采用老年抑郁量表(geriatric depression scale, GDS)、微型营养评估简表(mini-nutritional assessment short-form, MNA-SF)和生活质量调查表(quality of life questionnaire-core 30, QLQ-C 30)评价2组患者的心理状态、营养状况及生活质量。

GDS专门用于老年人的抑郁筛查,包含30个条目,采用“是”或“否”的选项便于老年人的理解和选择,每题阳性记1分,0~10分为正常范围,11~20分为轻度抑郁,21~30分为中重度抑郁^[4]。

MNA-SF专门用于评价老年人营养状况,简便、省时、无创伤,能较早发现营养不良风险的人群,12~14分:营养正常,8~11分:营养不良危险;0~7分:营养不良组^[5]。

QLQ-C 30为欧洲癌症研究治疗组织研发的癌症患者生命质量测定量表体系中的核心量表,包含30个条目,条目得分转化为0~100的标准化总分,总分值越高表明身体功能和生活质量更好^[6]。

1.4 统计学处理

采用SPSS 19.0统计软件进行数据处理。符合正态分布的计量资料以均数±标准差($\bar{x} \pm s$)表示,组间比较采用 t 检验。计数资料以例数(百分率)表示,组间比较采用 χ^2 检验。 $P < 0.05$ 为差异具有统计学意义。

2 结果

所有纳入患者均完成本研究,无失访患者,问卷完成和回收率100%。

2.1 2组康复治疗前后抑郁状态比较

放疗结束时,2组患者GDS评分差异无统计学意义($P > 0.05$);放疗后6个月时,康复组GDS评分较放疗结束时和对照组明显改善($P < 0.05$;表2)。

2.2 2组康复治疗前后营养状态比较

放疗结束时,2组患者MNA-SF评分差异无统

计学意义($P > 0.05$);放疗后6个月时,康复组MNA-SF评分相较放疗结束时以及对照组均有显著改善($P < 0.05$;表2);而对照组MNA-SF评分相较放疗结束时显著改善($P < 0.05$;表2)。

2.3 2组康复治疗前后生活质量比较

放疗结束时,2组患者QLQ-C 30评分组间差异均无统计学意义($P > 0.05$);放疗后6个月时,康复组QLQ-C 30评分相较放疗结束时和对照组显著改善($P < 0.05$;表2)。

3 讨论

随着人口老龄化,我国老年肿瘤患者不断增多。根据2013年全国肿瘤登记资料,60岁以上人群新发病例达2 171 000万例,占比58.96%^[7]。因肿瘤位置因素的影响,老年头颈部肿瘤患者容易出现语言、进食和社会活动障碍,导致抑郁、营养不良和生活质量下降;而肿瘤综合治疗使患者的生存期延长,因此,康复治疗的积极作用日益引起人们的关注^[8]。

老年人因认知功能下降和心脑血管疾病的影响,常伴随心理健康问题,容易产生抑郁等负性情绪^[9]。老年肿瘤患者出于对治疗效果的忧虑及对死亡的恐惧,抑郁状况更是十分常见。67%的患者存在持续的抑郁症状,这导致患者社会活动减少,生活质量下降,这些均与致残和死亡密切相关^[10]。本研究发现心理疏导具有积极的治疗作用,可明显降低患者的抑郁评分。Sandmael等^[11]证实头颈部肿瘤患者进行体力训练是可行的,可维持肌肉质量、增强体力,提高生活质量。本研究针对老年人肌肉的速度、力量和灵活性下降的特点,将耐力与协调性相结合的个体化体力训练作为综合性康复治疗中重要的组成部分。

老年头颈部肿瘤患者放疗后出现吞咽功能障碍十分普遍,导致饮食摄入减少和营养状态恶化^[12]。Kraaijenga等^[13]发现,对头颈部肿瘤患者进行吞咽训练可改善咀嚼和吞咽功能。本研究考虑到吞咽训

表2 2组患者心理、营养状态和生活质量比较

Table 2 Comparison of patients's status of depression, nutrition, quality of life between two groups ($n = 31$, score, $\bar{x} \pm s$)

Item	Rehabilitation group		Control group	
	At the end of RT	6 months after RT	At the end of RT	6 months after RT
GDS	12.26 ± 2.23	7.35 ± 1.75 **	12.37 ± 2.54	10.20 ± 1.94
MNA-SF	8.36 ± 4.11	10.85 ± 3.23 **	8.24 ± 4.05	9.56 ± 4.21 *
QLQ-C 30	46.77 ± 7.88	57.84 ± 9.57 **	46.53 ± 7.46	49.73 ± 10.01

RT: radiotherapy, GDS: geriatric depression scale; MNA-SF: mini-nutritional assessment short-form; QLQ-C 30: quality of life questionnaire-core 30. Compared with at the end of RT, * $P < 0.05$; compared with control group, # $P < 0.05$

练可能加重急性放射性口腔黏膜反应的症状,选择在放疗后开始吞咽功能训练。营养不良也是普遍问题。陈伟等^[14]证实,老年住院患者营养不良发生率为21.43%,营养不良风险达到37.76%,营养不良延长患者住院时间,并增加感染并发症和死亡风险。营养干预可增加头颈部肿瘤放疗患者的饮食摄入,维持体质量,改善生活质量,并对治疗效果产生积极影响^[15]。本研究发现,随着治疗副反应的减弱,对照组患者的营养状况也有所改善,但积极的吞咽训练和营养干预可更好地改善患者的营养状况。

生活质量涉及生理、心理和社会等多方面内容,能全面衡量生活状态,已成为评价恶性肿瘤疗效的重要指标^[16]。治疗技术的进步使患者生存期更长,长期生存的肿瘤患者追求生活质量的提高,而躯体、精神、社会、医疗和环境等多种因素均会影响老年肿瘤患者的自我感受和生活质量^[17]。本研究针对影响生活质量的各项因素,建立康复治疗小组,采取了包含心理疏导、体力锻炼、吞咽训练和营养干预的综合性康复治疗,互相促进、共同作用,提高了患者的生活质量。

综上所述,综合性康复治疗可以缓解老年头颈部肿瘤患者放疗后的抑郁情绪,改善营养状况,提高生活质量,值得推广应用。

【参考文献】

- [1] Porceddu SV, Haddad RI. Management of elderly patients with locoregionally confined head and neck cancer[J]. *Lancet Oncol*, 2017, 18(5): 274-283. DOI: 10.1016/S1470-2045(17)30229-2.
- [2] 王秋梅, 刘晓红. 老年综合评估在老年医学工作中的应用[J]. *中华老年多器官疾病杂志*, 2016, 15(8): 561-564. DOI: 10.11915/j.issn.1671-5403.2016.08.133.
Wang QM, Liu XH. Application of comprehensive geriatric assessment in the practice of geriatrics[J]. *Chin J Mult Organ Dis Elderly*, 2016, 15(8): 561-564. DOI: 10.11915/j.issn.1671-5403.2016.08.133.
- [3] Juarez JE, Choi J, St John M, et al. Patterns of care for elderly patients with locally advanced head and neck cancer[J]. *Radiat Oncol Biol Phys*, 2017, 98(4): 767-774. DOI: 10.1016/j.ijrobp.2017.01.209.
- [4] Yesavage JA, Brink TL, Rose TL, et al. Development and validation of a geriatric depression screening scale: a preliminary report[J]. *Psychiatr Res*, 1982-1983, 17(1): 37-49.
- [5] Dent E, Chapman I, Piantadosi C, et al. Screening for malnutrition in hospitalized older people: comparison of the Mini Nutritional Assessment with its short-form versions[J]. *Australas J Ageing*, 2017, 36(2): 8-13. DOI: 10.1111/ajag.12402.
- [6] Aaronson N, Ahmedzai S, Bergman B, et al. The European Organization for Research and Treatment of Cancer QLQ-C 30: a quality-of-life instrument for use in international clinical trials in oncology[J]. *Natl Cancer*, 1993, 85(5): 365-376. DOI: 10.1111/ajag.12402.
- [7] 陈万青, 郑荣寿, 张思维, 等. 2013年中国老年人群恶性肿瘤发病和死亡分析[J]. *中华肿瘤杂志*, 2017, 26(1): 60-66. DOI: 10.3760/cma.j.issn.0253-3766.2017.2.012.
Chen WQ, Zheng RS, Zhang SW, et al. Analysis of cancer incidence and mortality in elderly population in China, 2013[J]. *Chin J Oncol*, 2017, 26(1): 60-66. DOI: 10.3760/cma.j.issn.0253-3766.2017.2.012.
- [8] Vander Walde NA, Deal AM, Comitz E, et al. Geriatric assessment as a predictor of tolerance, quality of life, and outcomes in older patients with head and neck cancers and lung cancers receiving radiation therapy[J]. *Radiat Oncol Biol Phys*, 2017, 98(4): 850-857. DOI: 10.1016/j.ijrobp.2016.11.048.
- [9] Parpa E, Tsilika E, Gennimata V, et al. Elderly cancer patients' psychopathology: a systematic review: aging and mental health[J]. *Arch Gerontol Geriatr*, 2015, 60(1): 9-15. DOI: 10.1016/j.archger.2014.09.008.
- [10] Mitchell PB, Harvey SB. Depression and the older medical patient — when and how to intervene? [J]. *Maturitas*, 2014, 79(2): 153-159. DOI: 10.1016/j.maturitas.2014.05.010.
- [11] Sandmael JA, Bye A, Solheim TS, et al. Feasibility and preliminary effects of resistance training and nutritional supplements during versus after radiotherapy in patients with head and neck cancer: a pilot randomized trial[J]. *Cancer*, 2017, 123(22): 4440-4448. DOI: 10.1002/cncr.30901.
- [12] Riffat F, Gunaratne DA, Palme CE. Swallowing assessment and management pre and post head and neck cancer treatment[J]. *Curr Opin Otolaryngol Head Neck Surg*, 2015, 23(6): 440-447. DOI: 10.1097/MOO.000000000000205.
- [13] Kraaijenka SAC, Molen LV, Stuijver MM, et al. Efficacy of a novel swallowing exercise program for chronic dysphagia in long-term head and neck cancer survivors[J]. *Head Neck*, 2017, 39(10): 1943-1961. DOI: 10.1002/hed.24710.
- [14] 陈伟, 杨炯贤, 胡景, 等. 应用微型营养评估简表对老年科住院患者进行营养评估及预后调查[J]. *中华老年多器官疾病杂志*, 2015, 14(2): 98-102. DOI: 10.11915/j.issn.1671-5403.2015.02.023.
Chen W, Yang JX, Hu J, et al. Malnutrition screening by Mini Nutritional Assessment Short-Form and clinical outcomes evaluation for geriatric inpatients: report of 98 cases[J]. *Chin J Mult Organ Dis Elderly*, 2015, 14(2): 98-102. DOI: 10.11915/j.issn.1671-5403.2015.02.023.
- [15] Prevost V, Joubert C, Heutte N, et al. Assessment of nutritional status and quality of life in patients treated for head and neck cancer[J]. *Eur Ann Otorhinolaryngol Head Neck Dis*, 2014, 131(2): 113-120. DOI: 10.1016/j.anorl.2013.06.007.
- [16] Wedding U, Pientka L, Höfken K. Quality-of-life in elderly patients with cancer: a short review[J]. *Eur J Cancer*, 2007, 43(15): 2203-2210. DOI: 10.1016/j.ejca.2007.06.001.
- [17] Cheng KK, Lim EY, Kanesvaran R. Quality of life of elderly patients with solid tumors undergoing adjuvant cancer therapy: a systematic review[J]. *BMJ Open*, 2018, 8(1): 1-25. DOI: 10.1136/bmjopen-2017-018101.