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肺癌患者生活质量调查及化疗期间发生抑郁的影响因素分析*

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摘要 目的:探讨肺癌患者化疗前后生活质量的变化及化疗期间发生抑郁的影响因素。**方法:**将 2015 年 1 月~2019 年 12 月我院收治的 80 例肺癌患者纳入研究。所有患者均接受化疗干预,采用健康状况调查简表(SF-36)评分评估患者化疗前后生活质量,以抑郁自评量表(SDS)评估患者抑郁发生情况。对肺癌患者化疗期间发生抑郁的影响因素进行单因素以及多因素 Logistic 回归分析。**结果:**化疗后患者的各项生活质量评分均低于化疗前($P<0.05$)。80 例肺癌患者化疗期间出现 46 例抑郁症,抑郁症发生率为 57.50%。经单因素分析发现:性别、受教育程度、家庭月收入、疼痛程度、知晓病情均与肺癌患者化疗期间发生抑郁有关($P<0.05$)。经多因素 Logistic 回归分析可得:女性、家庭月收入<2500 元、I 度及以上疼痛、知晓病情均是肺癌患者化疗期间发生抑郁的独立危险因素($OR=7.295, 1.692, 3.952, 4.015, P<0.05$)。**结论:**化疗会在一定程度上降低肺癌患者的生活质量,同时会增加患者抑郁症发生风险,女性、家庭月收入<2500 元、I 度及以上疼痛、知晓病情均是肺癌患者化疗期间发生抑郁的独立危险因素。

关键词:肺癌;化疗;生活质量;抑郁;危险因素

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Quality of Life Survey of Lung Cancer Patients and Analysis of Influencing Factors of Depression During Chemotherapy*

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ABSTRACT Objective: To investigate the changes in quality of life of lung cancer patients before and after chemotherapy and the influencing factors of depression during chemotherapy. **Methods:** 80 lung cancer patients who were admitted to our hospital from January 2015 to December 2019 were included in the study. All patients were treated with chemotherapy intervention, and their quality of life before and after chemotherapy was evaluated by health status survey (SF-36) score, and the occurrence of depression was evaluated by depression self-rating scale (SDS). Univariate and multivariate Logistic regression analysis were performed to analyze the influencing factors of depression in lung cancer patients during chemotherapy. **Results:** All the qol scores after chemotherapy were lower than those before chemotherapy ($P<0.05$). There were 46 cases of depression in 80 cases of lung cancer patients during chemotherapy, and the incidence of depression was 57.50%. Univariate analysis showed that gender, education level, family monthly income, pain level and disease awareness were all associated with depression in lung cancer patients during chemotherapy ($P<0.05$). The multivariate Logistic regression analysis available: female, family monthly income < 2500 yuan, pain I degree and above, disease awareness are independent risk factors for lung cancer during chemotherapy in patients with depression occur ($OR=7.295, 1.692, 3.952, 4.015, P<0.05$). **Conclusion:** Chemotherapy can reduce the quality of life of patients with lung cancer to some extent, can increase the risk of patients with depression occur at the same time, female, family monthly income < 2500 yuan, pain I degree and above, disease awareness are independent risk factors for lung cancer patients with depression occurs during chemotherapy.

Key words: Lung cancer; Chemotherapy; Quality of life; Depression; Risk factors

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前言

迄今为止,关于肺癌的具体发病机制仍处于探究阶段,不少报道认为吸烟,生活环境及致癌物等均可能在肺癌的发生发展过程中起着至关重要的作用^[1-3]。一旦发生肺癌,患者普遍会出现较为强烈的不良情绪,相关调查数据表明,临床上约

有 50% 的肺癌患者会出现抑郁及沮丧等负性情绪,若不予以足够的重视和及时的干预,极易对患者的临床治疗效果以及预后造成不利影响^[4-6]。化疗是目前临床上广泛用于治疗肺癌的重要手段之一,其可在一定程度上延长患者生存时间,有效控制肺癌的复发以及转移。然而,长期化疗会导致患者出现一系列不良反应,从而对患者的生活质量产生负面影响,同时,化疗的费

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用相对高昂,会在极大程度上增加患者家庭的经济压力,从而导致患者的负性情绪加重,继而对其康复产生不良影响^[7-9]。鉴于此,本文通过探讨肺癌患者化疗前后生活质量的变化及化疗期间发生抑郁的影响因素,旨在为临床预防肺癌患者化疗期间抑郁的发生提供一定的数据支持,现作以下报道。

1 对象与方法

1.1 一般资料

将 2015 年 1 月~2019 年 12 月我院收治的 80 例肺癌患者纳入研究。纳入标准:(1)所有患者均经病理学检查确诊为肺癌;(2)均为成年人;(3)均行化疗干预;(4)无病灶转移。排除标准:(1)心、肝、肾、脑等发生严重病变者;(2)意识障碍或存在精神疾病者;(3)药物依赖者;(4)研究过程中因各种原因退出者。其中男、女人数分别为 48 例、32 例;年龄 40~84 岁,平均年龄(63.24±10.29)岁;受教育程度:初中及初中以下 33 例,高中及高中以上 47 例;家庭月收入:<2500 元 48 例,≥2500 元 32 例;体能状况(Karnofsky Performance Score, KPS)评分:<60 分 16 例,≥60 分 64 例;疼痛程度:0 度或无 65 例,Ⅰ度及以上 15 例;肿瘤转移 67 例,无转移 13 例;知晓病情 56 例,不知晓病情 24 例。所有患者及其家属均知情同意,本研究获批于我院医院伦理委员会。

1.2 研究方法

(1)收集所有患者的临床病历资料,主要项目包括以下几点:①性别;②受教育程度;③家庭月收入;④KPS 评分;⑤疼痛情况;⑥肿瘤转移情况;⑦知晓病情与否。(2)通过健康状况调查简表(Short form 36 health survey questionnaire, SF-36)评分完成化疗前后患者的生活质量评估^[10],主要内容包括 8 个方面:①生理职能;②生理机能;③情感职能;④社会功能;⑤精力;⑥精神健康;⑦健康状况;⑧躯体疼痛。(3)以抑郁自评量表(Self rating Depression Scale, SDS)实现对患者抑郁发生情况的判定^[11];依照国内常模结果,SDS 总分为 80 分,完成抑郁指数的计算,抑郁指数<0.5 记为正常;抑郁指数≥0.5 记为抑郁。将所有患者根据抑郁指数的差异分成抑郁症组 46 例以及无抑郁症组 34 例。

1.3 统计学处理

应用 SPSS 22.0 软件分析数据,计数资料用[n(%)]表示,给予 χ^2 检验。计量资料用($\bar{x} \pm s$)表示,给予 t 检验,肺癌患者化疗期间发生抑郁的影响因素予以单因素以及多因素 Logistic 回归分析。将 $P < 0.05$ 记作差异有统计学意义。

2 结果

2.1 化疗前后生活质量评价

化疗后患者的各项生活质量评分均低于化疗前($P < 0.05$),见表 1。

表 1 化疗前后生活质量评价($\bar{x} \pm s$, 分)
Table 1 Quality of life before and after chemotherapy($\bar{x} \pm s$, score)

Evaluation items	Before chemotherapy	After chemotherapy	t	P
Physiological function	85.22±10.95	63.85±12.44	11.533	0.000
Physiological enginery	84.72±10.72	62.69±13.55	11.404	0.000
Emotional function	83.05±11.87	61.68±13.41	10.673	0.000
Social function	84.76±13.80	62.26±13.87	10.286	0.000
Energy	81.75±12.69	60.85±13.26	10.185	0.000
Mental health	82.06±14.03	61.16±13.18	9.711	0.000
Health condition	84.77±11.79	62.01±13.95	11.146	0.000
Somatic pain	82.95±12.06	60.07±13.29	11.403	0.000

2.2 肺癌患者化疗期间抑郁症发生情况及影响因素的单因素分析

80 例肺癌患者化疗期间未发生抑郁症的有 34 例,发生抑郁症的有 46 例,抑郁症发生率为 57.50%。经单因素分析发现:性别、受教育程度、家庭月收入、疼痛程度、知晓病情均与肺癌患者化疗期间发生抑郁有关($P < 0.05$),KPS 评分、肿瘤转移均与肺癌患者化疗期间发生抑郁无关($P > 0.05$),见表 2。

2.3 肺癌患者化疗期间发生抑郁影响因素的多因素 Logistic 回归分析

以肺癌患者化疗期间是否发生抑郁为因变量(是=1,否=0),以性别、受教育程度、家庭月收入、疼痛程度以及知晓病情为自变量(男性=0,女性=1;初中及初中以下=0,高中及高中以上=1;家庭月收入<2500 元=1,≥2500 元=0;0 度或无疼痛=0,Ⅰ度及以上疼痛=1;知晓病情=1,不知晓病情=0),经多因

素 Logistic 回归分析可得:女性、家庭月收入<2500 元、Ⅰ度及以上疼痛、知晓病情均是肺癌患者化疗期间发生抑郁的独立危险因素($P < 0.05$),见表 3。

3 讨论

肺癌是全球范围内发病率最高的恶性肿瘤之一,随着人们生活方式的不断改变以及生活环境的日益恶化,其发病率正呈逐年升高趋势,且有死亡率较高的特点,严重威胁人类的生命健康安全^[12-14]。化疗是目前临床上应用较为广泛的一种肺癌治疗手段,然而,化疗药物往往具有细胞毒性,其在对肿瘤细胞进行杀伤时,不可避免会对机体内正常细胞以及组织造成损伤,继而影响患者的生活质量以及心理状态^[15-17]。相关研究报道表明,人体心理状态和生理状态具有相互作用的特点,积极乐观的心理状态可在一定程度上增强机体的免疫能力,改善机体协

调与代偿能力,继而为肺癌的康复创造有利条件,而不良心理状态则会对患者康复产生负性影响^[18-20]。而对接受化疗的肺癌患者进行心理调节显得极为重要,其不但直接影响患者对抗疾

病的自信心,同时与患者的临床治疗效果以及生存质量密切相关^[21-23]。

表 2 肺癌患者化疗期间发生抑郁影响因素的单因素分析(例,%)

Table 2 Univariate analysis of depression influencing factors in lung cancer patients during chemotherapy(n, %)

Factors		Depression group (n=46)	No depression group (n=34)	χ^2	P
Gender	Male	17(36.96)	31(91.18)	23.947	0.000
	Female	29(63.04)	3(8.82)		
Education level	Junior high school and below	8(17.39)	25(73.53)	25.423	0.000
	High school and above	38(82.61)	9(26.47)		
Family monthly income(yuan)	<2500	34(73.91)	14(41.18)	8.730	0.003
	≥ 2500	12(26.09)	20(58.82)		
KPS score(scores)	<60	10(21.74)	6(17.65)	0.205	0.651
	≥ 60	36(78.26)	28(82.35)		
Pain degree	0 degree or none	33(71.74)	32(94.12)	6.427	0.011
	I degree and above	13(28.26)	2(5.88)		
Tumor metastasis	Yes	41(89.13)	26(76.47)	2.302	0.129
	No	5(10.87)	8(23.53)		
Disease awareness	Yes	44(95.65)	12(35.29)	33.915	0.000
	No	2(4.35)	22(64.71)		

表 3 肺癌患者化疗期间发生抑郁影响因素的多因素 Logistic 回归分析

Table 3 Multivariate logistic regression analysis of the influencing factors of depression in lung cancer patients during chemotherapy

Variables	β	Wald χ^2	SE	P	OR	95%CI
Female	2.055	31.035	0.355	0.000	7.295	3.428~8.855
Family monthly income < 2500 yuan	2.596	23.955	0.285	0.000	1.692	1.495~2.283
Pain I degree and above	2.406	9.584	0.274	0.000	3.952	2.295~5.052
Disease awareness	2.959	7.205	0.266	0.011	4.015	3.105~5.745

本研究结果表明,化疗后患者的各项生活质量评分均低于化疗前,刘威等人的研究报道也证实了这一点^[24]:化疗会在极大程度上降低肺癌患者的生活质量。分析原因,我们认为化疗药物或多或少存在细胞毒性,在对肿瘤细胞进行杀灭的同时,会损伤骨髓细胞以及胃肠道黏膜细胞等多种人体内正常细胞,从而会导致患者出现免疫功能降低、食欲减退以及恶心呕吐、便秘等症状,进一步导致了患者生活质量的下降。此外,80 例肺癌患者化疗期间出现 46 例抑郁症,抑郁症发生率为 57.50%,表明了肺癌化疗患者的抑郁发生几率较高。究其原因,长期化疗会导致患者各项身体机能受到不同程度的损害,加之医疗费用的不断增加造成的经济压力,患者往往会感觉到情绪低落,从而增加抑郁的发生几率^[25,26]。同时,化疗会对患者胃肠道功能产生一定程度的损伤,进一步导致患者出现恶心呕吐、贫血、脱发以及疲乏等不良反应,继而促使患者的心理状态出现明显变化^[27,28]。因此,在临床实际工作中,应重点关注肺癌化疗患者的心理状态,尤其要重视其抑郁情绪,可能通过实施针

对性干预,继而保障患者的心理健康,为疾病的康复创造有利条件。另外,经多因素 Logistic 回归分析可得:女性,家庭月收入<2500 元, I 度及以上疼痛,知晓病情均是肺癌患者化疗期间发生抑郁的独立危险因素。这提示了家庭月收入较少,较高的疼痛程度,患者为女性,患者知晓自己病情严重程度均会导致肺癌化疗患者的抑郁发生率升高。分析原因,女性在患肺癌后与男性相比较易积攒不良情绪且不善于发泄自身心理情绪,且女性肺癌患者往往处于绝经后期,体内雌激素水平相对较低,使得情绪更易波动,继而可能增加抑郁发生率;家庭月收入越低的患者家庭经济压力越大,而化疗费用通常较为高昂,不可避免会增加患者的心理负担;疼痛属于肺癌常见症状之一,同时亦是患者身体以及心理应激源之一,随着疼痛的加剧,会导致患者精神痛苦的加重,进而导致患者较易产生抑郁情绪;知晓病情属于肺癌化疗患者的应激源之一,由于多数患者确诊时处于中晚期,可能已经错过治疗的最佳时机,当患者知情时精神会受到较大冲击,从而极易发生抑郁等心理应激反

应^[29,30]。本文研究尚存在一定的不足之处,比如研究涉及的样本量较小,今后可进一步纳入更多的病历资料数据进行分析,从而得到更加精准的结论。

综上所述,化疗会降低肺癌患者的生活质量,且会导致其抑郁发生风险增高。患者性别为女性、家庭月收入<2500元、I度及以上疼痛、知晓病情均会增加其化疗期间抑郁发生率,在临床肺癌患者的化疗中重视以上因素,采取适当的干预措施将有助于降低患者抑郁的发生风险。

参考文献(References)

- [1] Park DW, Jang JY, Park TS, et al. Burden of male hardcore smokers and its characteristics among those eligible for lung cancer screening [J]. BMC Public Health, 2020, 20(1): 151-153
- [2] Bricker JB, Watson NL, Heffner JL, et al. A Smartphone App Designed to Help Cancer Patients Stop Smoking: Results From a Pilot Randomized Trial on Feasibility, Acceptability, and Effectiveness[J]. JMIR Form Res, 2020, 4(1): 16652-16654
- [3] Cai H, Lu W, Zhang Y, et al. Specific inhibition of Notch1 signaling suppresses properties of lung cancer stem cells[J]. J Cancer Res Ther, 2019, 15(7): 1547-1552
- [4] Zinnah KMA, Park SY. Duloxetine Enhances TRAIL-mediated Apoptosis via AMPK-mediated Inhibition of Autophagy Flux in Lung Cancer Cells[J]. Anticancer Res, 2019, 39(12): 6621-6633
- [5] Wang Z, Li S, Wu L, et al. Effect of acupuncture on lung cancer-related fatigue: study protocol for a multi-center randomized controlled trial[J]. Trials, 2019, 20(1): 625-626
- [6] Kim KI, Kong M, Lee SH, et al. The efficacy and safety of Kyung-Ok-Ko on cancer-related fatigue in lung cancer patients: Study protocol for a randomized, patients-assessor blind, placebo-controlled, parallel-group, single-center trial[J]. Medicine (Baltimore), 2019, 98(44): 17717-17718
- [7] Hugoy T, Lerdal A, Rustoen T, et al. Predicting postoperative fatigue in surgically treated lung cancer patients in Norway: a longitudinal 5-month follow-up study[J]. BMJ Open, 2019, 9(9): 28192-28193
- [8] Vaidya P, Bera K, Gupta A, et al. CT derived radiomic score for predicting the added benefit of adjuvant chemotherapy following surgery in Stage I, II resectable Non-Small Cell Lung Cancer: a retrospective multi-cohort study for outcome prediction [J]. Lancet Digit Health, 2020, 2(3): e116-e128
- [9] Papadopoulos D, Kiagia M, Charpidou A, et al. Psychological correlates of sleep quality in lung cancer patients under chemotherapy: A single-center cross-sectional study [J]. Psychooncology, 2019, 28(9): 1879-1886
- [10] 王玉凤, 商敏, 关淑芬, 等. 老年肺癌患者服用吉非替尼期间 SF-36 生活质量问卷评分的意义 [J]. 中国老年学杂志, 2015, 35(9): 2516-2518
- [11] 钟晓莉, 赵彩云, 赵天霞, 等. 圆桌认知疗法对肺癌化疗患者焦虑和抑郁情绪的干预效果[J]. 解放军护理杂志, 2018, 35(2): 30-33
- [12] Xu R, Han Y. Long non-coding RNA FOXF1 adjacent non-coding developmental regulatory RNA inhibits growth and chemotherapy resistance in non-small cell lung cancer [J]. Arch Med Sci, 2019, 15(6): 1539-1546
- [13] McFarland DC, Jutagir DR, Rosenfeld B, et al. Depression and inflammation among epidermal growth factor receptor (EGFR) mutant nonsmall cell lung cancer patients [J]. Psychooncology, 2019, 28(7): 1461-1469
- [14] Kim SY, Kim SW, Shin IS, et al. Collaborative Care to Relieve Psychological Distress in Patients with Medically Inoperable Lung Cancer: Design and Rationale for a Clinical Trial [J]. Psychiatry Investig, 2019, 16(7): 547-553
- [15] Huo J, Bian J, Xie Z, et al. Patterns of Postdiagnosis Depression Among Late-Stage Cancer Patients: Do Racial/Ethnic and Sex Disparities Exist[J]. Am J Clin Oncol, 2019, 42(8): 675-681
- [16] Laryionava K, Hartmann M, Sklenarova H, et al. Cancer Patients' Preferences for either Quality of Life or a Longer Life Determine Their Willingness to Talk about Forgoing Cancer-Specific Treatment [J]. Oncol Res Treat, 2019, 42(9): 458-465
- [17] 王晓华, 廖佳, 姚阳, 等. 老年肺癌患者化疗期间抑郁情况调查及相关因素分析[J]. 现代生物医学进展, 2018, 18(4): 750-753
- [18] Hyland KA, Small BJ, Gray JE, et al. Loneliness as a mediator of the relationship of social cognitive variables with depressive symptoms and quality of life in lung cancer patients beginning treatment[J]. Psychooncology, 2019, 28(6): 1234-1242
- [19] Feld E, Singhi EK, Phillips S, et al. Palliative Care Referrals for Advanced Non-small-cell Lung Cancer (NSCLC): Patient and Provider Attitudes and Practices[J]. Clin Lung Cancer, 2019, 20(3): 291-298
- [20] Shahedah KK, How SH, Jamalludin AR, et al. Depressive Symptoms in Newly Diagnosed Lung Carcinoma: Prevalence and Associated Risk Factors[J]. Tuberc Respir Dis (Seoul), 2019, 82(3): 217-226
- [21] Park S, Kim JY, Lee JC, et al. Mobile Phone App-Based Pulmonary Rehabilitation for Chemotherapy-Treated Patients with Advanced Lung Cancer: Pilot Study [J]. JMIR Mhealth Uhealth, 2019, 7(2): 11094-11095
- [22] Miwata K, Masuda T, Yamaguchi K, et al. Performance Status Is a Risk Factor for Depression before the Diagnosis of Lung Cancer Patients[J]. Intern Med, 2019, 58(7): 915-920
- [23] Yan XR, Chen X, Zhang P, et al. Prevalence and risk factors of depression in patients with lung cancer: protocol for a systematic review and meta-analysis[J]. BMJ Open, 2019, 9(8): 28994-28995
- [24] 刘威, 周灵, 沈红梅, 等. 晚期非小细胞肺癌患者化疗前后睡眠及生活质量变化及相互关系的研究[J]. 华中科技大学学报(医学版), 2019, 48(1): 98-103
- [25] 顾芬, 侯黎莉, 李玉梅, 等. 非小细胞肺癌化疗患者抑郁状况及其影响因素[J]. 中国慢性病预防与控制, 2016, 24(5): 359-362
- [26] Henshall C, Davey Z. Development of an app for lung cancer survivors (iEXHALE) to increase exercise activity and improve symptoms of fatigue, breathlessness and depression [J]. Psychooncology, 2020, 29(1): 139-147
- [27] 翁美芳, 宋正波, 叶萍, 等. 老年肺癌化疗患者抑郁现状调查与分析[J]. 中国急救医学, 2017, 37(22): 259-260
- [28] Minchom A, Mak D, Gunapala R, et al. A prospective observational study of on-treatment plasma homocysteine levels as a biomarker of toxicity, depression and vitamin supplementation lead-in time pre pemetrexed, in patients with non-small cell lung cancer and malignant mesothelioma[J]. PLoS One, 2019, 14(11): 225509-225510
- [29] 谭兴平, 刘娜娜, 付愚, 等. 肺癌术后化疗患者健康状况调查及癌因性疲乏的影响因素研究[J]. 实用预防医学, 2018, 25(7): 853-856
- [30] 张颖, 赵丽波, 周维国, 等. 影响认知行为疗法对晚期非小细胞肺癌患者抑郁状态疗效的相关因素分析[J]. 实用癌症杂志, 2018, 33(7): 1127-1130