·临床研究·

老年肺癌合并慢性阻塞性肺疾病现状及其治疗情况与影响因素分析

梁新培*,李蕊,喻言,杨艟舸,高占成
(北京大学人民医院呼吸与危重症医学科,北京 100044)

【摘 要】 **目的** 研究老年肺癌慢性阻塞性肺疾病(LC-COPD)共病和慢性阻塞性肺疾病(COPD)专项治疗现状及相关影响因素。**方法** 选取2025年1月至5月北京大学人民医院收治的210例老年肺癌(LC)患者作为研究对象,收集患者人口学资料、病情资料、影像学检查结果等数据。所有患者均完成全套肺功能检查,根据患者是否合并COPD将患者分为LC-COPD组与LC组。对LC-COPD患者COPD专项治疗现状进行统计分析,并根据统计结果将LC-COPD组患者进一步分为治疗组和未治疗组。采用SPSS 26.0软件进行数据分析。根据数据类型,组间比较采用独立样本t检验或χ^2检验。采用logistic回归模型分析影响老年LC患者LC-COPD共病的相关因素,以及LC-COPD患者是否进行COPD专项治疗的影响因素。**结果** 210例老年LC患者中,经肺功能检查确诊有128例(60.95%)患者合并COPD。logistic回归分析结果显示,男性(OR=2.102,95%CI 1.278~3.459;P=0.004)、吸烟指数≥400支/年(OR=1.560,95%CI 1.067~2.282;P=0.022)及肺气肿(OR=1.725,95%CI 1.198~2.483;P=0.004)是老年LC-COPD共病的危险因素。128例LC-COPD组患者中,有44例患者进行了COPD相关治疗,其中22例患者依照慢性阻塞性肺疾病全球倡议(GOLD)首选推荐用药方案进行治疗,剩余22例患者未按照指南推荐方案用药。以LC-COPD患者是否进行COPD治疗作为因变量,logistic回归分析结果显示,GOLD分级3~4级(OR=2.168,95%CI 1.160~4.052;P=0.016)、呼吸困难指数评分≥2分(OR=1.738,95%CI 1.234~2.450;P=0.002)、COPD评估测试评分≥10分(OR=1.972,95%CI 1.199~3.244;P=0.008)、体力状况评分≥2分(OR=1.404,95%CI 1.060~1.858;P=0.018)及焦虑(OR=1.335,95%CI 1.091~1.634;P=0.005)是LC-COPD患者进行COPD专项治疗的影响因素。**结论** 老年LC患者COPD共病率高,应注重男性、吸烟指数≥400支/年、出现肺气肿的老年LC患者的肺功能评估;同时,LC-COPD共病者COPD专项治疗率低,且存在相当比例的用药不规范问题,COPD病情严重、体力状况差以及合并焦虑者更易得到COPD专项治疗,建议临床积极进行COPD病情评估,给予LC-COPD共病患者相应的COPD用药干预。

【关键词】 老年人;肺癌;慢性阻塞性肺疾病;慢性阻塞性肺疾病治疗
【中图分类号】 R563.9 【文献标志码】 A 【DOI】 10.11915/j.issn.1671-5403.2026.07.101

Analysis of current status and treatment status and influencing factors of lung cancer with chronic obstructive pulmonary disease in the elderly

Liang Xinpei*, Li Rui, Yu Yan, Yang Chongge, Gao Zhancheng
(Department of Respiratory and Critical Care Medicine, Peking University People's Hospital, Beijing 100044, China)

【**Abstract**】 **Objective** To investigate the current status and related influencing factors of chronic obstructive pulmonary disease (COPD) specific treatment in elderly patients with lung cancer (LC) and COPD (LC-COPD) comorbidity. **Methods** A total of 210 elderly LC patients admitted to Peking University People's Hospital from January to May 2025 were enrolled. Demographic data, clinical information, and imaging findings were collected. All patients underwent comprehensive pulmonary function tests, and were divided into a LC-COPD group and a LC group based on whether COPD was present. The current status of specialized COPD treatment was analyzed in the LC-COPD patients, and the LC-COPD group was further assigned into a treated subgroup and an untreated subgroup. SPSS 26.0 statistics was used for data analysis. Data comparisons between two groups was conducted using independent samples t test or χ^2 test depending on data type. Logistic regression model was employed to analyze influencing factors for LC-COPD comorbidity and for whether receiving specialized COPD treatment among the LC-COPD patients. **Results** Among the 210 elderly LC patients, pulmonary function tests confirmed that 128 patients (60.95%) also had COPD. Logistic regression analysis revealed that male (OR=2.102, 95%CI 1.278-3.459; P=0.004), smoking index ≥400 cigarettes/year (OR=1.560, 95%CI 1.067-2.282; P=0.022) and emphysema

收稿日期: 2025-07-19; **接受日期**: 2025-10-11
基金项目: 北京大学人民医院研究与发展基金(RDJP2024-21)
通信作者:梁新培, E-mail: LXP202406@163.com

(*OR* = 1.725, 95%*CI* 1.198-2.483; *P* = 0.004) were risk factors for LC-COPD comorbidity in elderly LC patients. Of the 128 patients with LC-COPD, 44 patients received COPD-related treatment, including 22 patients who followed the preferred treatment regimens recommended by the Global Initiative for Chronic Obstructive Lung Disease (GOLD), while the remaining 22 patients did not adhere to the guideline recommendations. With whether LC-COPD patients received COPD treatment as the dependent variable, logistic regression analysis revealed that GOLD stage 3-4 (*OR* = 2.168, 95%*CI* 1.160-4.052; *P* = 0.016), dyspnea index score ≥2 points (*OR* = 1.738, 95%*CI* 1.234-2.450; *P* = 0.002), COPD assessment test score ≥10 points (*OR* = 1.972, 95%*CI* 1.199-3.244; *P* = 0.008), physical status score ≥2 points (*OR* = 1.404, 95%*CI* 1.060-1.858; *P* = 0.018) and anxiety (*OR* = 1.335, 95%*CI* 1.091-1.634; *P* = 0.005) were influencing factors for receiving specialized COPD treatment in LC-COPD patients. **Conclusion** Elderly LC patients exhibit high comorbidity rate of COPD. Lung function assessment should be particularly emphasized among male patients, those with a smoking index ≥400 cigarettes/year and those with emphysema. Additionally, the rate of specialized COPD treatment is quite low among patients with LC-COPD comorbidity, and there are considerable instances of non-adherence to prescribed therapies. Patients with severe COPD, poor physical condition, or comorbid anxiety are more likely to receive targeted COPD treatment. It is recommended that clinicians should conduct comprehensive COPD assessments and provide appropriate pharmacological interventions for patients with LC-COPD comorbidity.

【**Key words**】 aged; lung cancer; chronic obstructive pulmonary disease; chronic obstructive pulmonary disease treatment

This work was supported by the Research and Development Fund of Peking University People's Hospital (RDJP2024-21).

Corresponding author: *Liang Xinpei*, *E-mail*: *LXP202406@163.com*

肺癌(lung cancer, LC)与慢性阻塞性肺疾病(chronic obstructive pulmonary disease, COPD)均是常见的呼吸系统疾病,两者关系密切,具有共同的危险因素与致病机制[1]。有研究显示,COPD 是 LC 发病的独立危险因素,同时 LC 患者中有 40%~70%合并 COPD[2,3]。由于 LC 与 COPD 的临床症状相似,临床往往更关注 LC 的诊断与治疗,而忽视 COPD,对肺癌慢性阻塞性肺疾病(lung cancer-chronic obstructive pulmonary disease, LC-COPD)共病的认识普遍不足。据相关研究报道,就诊于呼吸专科的 LC 患者中,COPD 诊断率为 34.8%,而就诊于非呼吸科的 LC 患者的 COPD 诊断率仅为 2.9%[4]。随着研究的不断深入,越来越多的证据表明 COPD 会影响 LC 治疗决策,并增加 LC 根治术后并发症风险,故积极诊断 COPD 并进行专项治疗,对改善老年 LC 患者预后,提高生活质量具有重要意义[5]。基于此,本研究对老年 LC-COPD 共病患者的临床特征、COPD 专项治疗现状及相关影响因素进行分析,旨在为 LC-COPD共病患者的干预提供参考。

1 对象与方法

1.1 研究对象

选取 2025 年 1 月至 5 月北京大学人民医院收治的 210 例老年 LC 患者作为研究对象,所有患者均完成全套肺功能检查。诊断标准:(1)均经组织病理学检查确诊;(2)COPD 诊断参照中华医学会呼吸病学分会慢性阻塞性肺疾病学组《慢性阻塞性肺疾病诊疗指南(2021 年)》[6]。纳入标准:年龄≥60 岁;符合相关诊断标准;合并 COPD 者入院时处于 COPD 稳定期;临床资料完整。排除标准:合并间质性肺疾病、尘肺病、支气管扩张、肺结核等其他肺部疾病;合并心脏病、严重肝肾功能损害等疾病;合并其他恶性肿瘤。本研究方案经北京大学人民医院伦理委员会批准(批准文号:2016PHB202-01),所有受试者均在参与研究前签署书面知情同意书。研究符合《赫尔辛基宣言》。

1.2 方法

1.2.1 分组依据 根据老年 LC 患者是否合并 COPD,将其分为 LC-COPD 组与 LC 组,比较两组患者临床特征,分析可能影响 LC-COPD 的相关因素。再根据 LC-COPD 组患者是否进行 COPD 专项治疗,将其分为治疗组与未治疗组。对比两组患者临床资料,分析可能影响 LC-COPD 患者 COPD 专项治疗的相关因素。

1.2.2 资料收集 通过北京大学人民医院电子病历系统采集患者资料,其中影像学检查、肺功能检查、量表评估等资料均在患者入院后第 1 天完成。(1)一般人口学资料:年龄、性别、体质量指数(body mass index, BMI)、吸烟史、吸烟指数;(2)肿瘤资料:癌灶位置、解剖学部位分类、组织病理学类型、肿瘤 TNM 分期、肿瘤最大直径;(3)临床表现:咳嗽、咳痰、呼吸困难、气短、咯血、胸痛、胸腔积液、乏力、消瘦;(4)影像学特征:胸腔积液、肺不张、肺气肿;(5)肺功能及 COPD 病情资料:肺弥散功能损害严重程度,参照中华医学会呼吸病学分会肺功能专业组制定的肺功能检查指南[7],以患者一氧化碳弥散量(diffusing capacity for carbon monoxide, DLCO)占预计值百分比(diffusing capacity for carbonmonoxide

percent predicted, DLCO%pred)进行划分;同时测定第1秒用力呼气流量(forced expiratory volumem in one second, FEV1)占预计值百分比(forced expiratory volume in one second percent predicted, FEV1% pred)、用力肺活量(forced vital capacity, FVC)占预计值百分比(forced vital capacity percent predicted, FVC%pred)、FEV1/FVC、每分钟最大通气量(maximum expiratory volume, MMV)、慢性阻塞性肺疾病全球倡议(Global Initiative for Chronic Obstructive Lung Disease, GOLD)分级[8]、改良英国医学研究委员会呼吸困难量表(modified medical research council scale, mMRC)[9]、COPD患者自我评估测试(COPD assessment test, CAT)评分[10];(6)其他资料:焦虑自评量表(self-rating anxiety scale, SAS)[11]、抑郁自评量表(self-rating depression scale, SDS)[12]、体力状况(performance status, PS)[13]。

1.2.3 LC-COPD组患者COPD用药统计 对LC-COPD组患者COPD用药情况进行统计,同时根据GOLD指南相关标准[8],以患者临床症状与过去1年中重度急性发作史为依据对患者进行分层,分为治疗组和未治疗组,参照指南中首选推荐用药方案,评估各分层患者用药合理性。

1.3 统计学处理

采用SPSS 26.0统计软件进行数据分析。计量资料用均数±标准差($\bar{x}\pm s$)表示,组间比较采用独立样本t检验;计数资料例数(百分率)表示,组间比较采用χ^2检验。采用二元logistic回归模型分析影响老年LC-COPD的影响因素,以及LC-COPD患者是否进行COPD专项治疗的影响因素。$P<0.05$为差异有统计学意义。

2 结 果

2.1 两组患者临床资料

210例老年LC患者中,经肺功能检查确诊合并COPD共128例,占比60.95%。LC-COPD组中男性、吸烟史、吸烟指数≥400支/年、中央型、鳞癌、TNM分期Ⅲ~Ⅳ期、肺气肿者占比均高于LC组,FEV1%pred及FEV1/FVC水平低于LC组,肺弥散功能损伤程度高于LC组,差异均有统计学意义($P<0.05$;表1)。

2.2 老年LC-COPD的影响因素分析

以老年LC-COPD作为因变量,表1中有统计学意义的指标作为自变量,进行logistic回归分析,结果显示,男性、吸烟指数≥400支/年、肺气肿是LC-COPD发生的危险因素($P<0.05$;表2)。

表1 两组患者临床资料比较

Table 1 Comparison of clinical data between two groups

Item	LC-COPD group(n=128)	LC group (n=82)	t/χ^2	P value
Age[n(%)]			2.038	0.153
60-80 years	70(54.69)	53(64.63)		
≥80 years	58(45.31)	29(35.37)		
Gender[n(%)]			11.110	<0.001
Male	93(72.66)	41(50.00)		
Female	35(27.34)	41(50.00)		
BMI[n(%)]			0.929	0.628
<18.5 kg/m^2	23(17.97)	12(14.63)		
18.5-24.0 kg/m^2	73(57.03)	45(54.88)		
≥24.0 kg/m^2	32(25.00)	25(30.49)		
Smoking history[n(%)]	87(67.97)	25(30.49)	28.211	<0.001
Smoking index[n(%)]			10.175	0.001
<400 cigarettes/year	76(59.38)	66(80.49)		
≥400 cigarettes/year	52(40.62)	16(19.51)		
Lesion site[n(%)]			0.088	0.957
Right lung	52(40.63)	35(42.68)		
Left lung	47(36.72)	29(35.37)		
Both lungs	29(22.65)	18(21.95)		
Anatomical site classification [n(%)]			6.029	0.014
Central type	47(36.72)	17(20.73)		
Peripheral type	81(63.28)	65(79.27)		
Histopathological type [n(%)]			20.589	<0.001
Adenocarcinoma	61(47.66)	63(76.83)		
Squamous carcinoma	45(35.16)	9(10.97)		
Small cell lung cancer	13(10.16)	8(9.76)		
Others	9(7.03)	2(2.44)		
TNM staging[n(%)]			12.821	<0.001
Ⅰ-Ⅱ	82(64.06)	71(86.59)		
Ⅲ-Ⅳ	46(35.94)	11(13.41)		
Maximum tumor diameter [n(%)]			0.194	0.660
<5 cm	108(84.38)	71(58.54)		
≥5 cm	20(15.62)	11(52.44)		
Clinical manifestation[n(%)]				
Cough	81(63.28)	48(58.54)	0.475	0.491
Expectoration	73(57.03)	43(52.44)	0.426	0.514
Dyspnea	9(7.03)	4(4.88)	0.399	0.528
Shortness of breath	67(52.34)	48(58.54)	0.774	0.379
Hemoptysis	28(21.88)	16(19.51)	0.169	0.681
Chest pain	25(19.53)	18(21.95)	0.180	0.672
Fatigue	6(4.69)	3(3.66)	0.129	0.719
Emaciation	5(3.91)	2(2.44)	0.334	0.563
Pleural effusion	17(13.28)	5(6.10)	2.750	0.097
Pulmonary atelectasis	21(16.41)	6(7.32)	3.685	0.055
Emphysema	58(45.31)	11(13.41)	23.051	<0.001
FEV1%pred(%, $\bar{x}\pm s$)	66.15±12.15	76.87±13.33	6.004	<0.001
FVC%pred(%, $\bar{x}\pm s$)	103.45±24.17	104.01±21.74	0.170	0.865
FEV1/FVC(%, $\bar{x}\pm s$)	61.94±15.53	67.91±16.05	2.682	0.008
MMV(L, $\bar{x}\pm s$)	92.15±2.34	91.87±2.21	0.864	0.388
Diffusion function damage [n(%)]			22.461	<0.001
Normal	69(53.91)	70(85.36)		
Mild decline	34(26.56)	8(9.76)		
Moderate decline	14(10.94)	4(4.88)		
Severe decline	11(8.59)	0(0.00)		

LC: lung cancer; COPD: chronic obstructive pulmonary diseas; BMI: body mass index; TNM: tumor node metastasis; FEV1% pred: forced expiratory volume in one second percent predicted; FVC% pred: forced vital capacity percent predicted; FEV1: forced expiratory volumem in one second; FVC: forced vital capacity; MMV: maximum expiratory volume.

表 2 老年 LC-COPD 的 logistic 回归分析

Table 2 Logistic regression analysis for elderly patients with LC-COPD

Factor	β	*SE*	*Wald* χ^2	*OR*	95%*CI*	*P* value
Male	0.743	0.254	8.557	2.102	1.278-3.459	0.004
Smoking history	0.389	0.296	1.727	1.476	0.826-2.636	0.189
Smoking index ≥400 cigarettes/year	0.445	0.194	5.262	1.560	1.067-2.282	0.022
Central type	0.313	0.288	1.181	1.368	0.778-2.405	0.278
Histopathological type	-	-	-	Ref.	-	-
Adenocarcinoma						
Squamous carcinoma	0.254	0.225	1.274	1.289	0.829-2.004	0.260
Small cell lung cancer	0.319	0.276	1.336	1.376	0.801-2.363	0.248
Others	0.335	0.320	1.096	1.398	0.747-2.617	0.296
TNM stage Ⅲ-Ⅳ	0.689	0.527	1.709	1.992	0.709-5.595	0.192
Emphysema	0.545	0.186	8.586	1.725	1.198-2.483	0.004
FEV1%pred	0.229	0.197	1.351	1.257	0.855-1.850	0.246
FEV1/FVC	0.194	0.167	1.349	1.214	0.875-1.684	0.246
Diffusion function damage						
Normal	-	-	-	Ref.	-	-
Mild decline	0.333	0.278	1.435	1.395	0.809-2.406	0.232
Moderate decline	0.412	0.358	1.324	1.510	0.749-3.046	0.250
Severe decline	0.505	0.453	1.243	1.657	0.682-4.026	0.266

LC: lung cancer; COPD: chronic obstructive pulmonary diseas; TNM: tumor node metastasis; FEV1: forced expiratory volumem in one second; FVC: forced vital capacity.

2.3 LC-COPD 组患者用药情况

128 例 LC-COPD 组患者中,有 44 例进行 COPD 相关治疗,根据 GOLD 指南相关标准,对患者进行分层。结果显示,44 例进行 COPD 治疗的患者中,有 22 例(治疗组)依照 GOLD 首选推荐的用药方案进行治疗,剩余 22 例(未治疗组)未能按照指南推荐方案用药,其中 18 例存在用药过度情况,4 例存在用药不足。

2.4 LC-COPD 治疗组与未治疗组临床资料比较

治疗组 GOLD 分级 3~4、mMRC 评分≥2 分、CTA 评分≥10 分、PS 评分≥2 分、焦虑占比均高于未治疗组,差异均有统计学意义(P<0.05;表 3)。

2.5 LC-COPD 患者进行 COPD 治疗的影响因素分析

以 LC-COPD 患者是否进行 COPD 治疗作为因变量,表 3 中有统计学意义的指标作为自变量,进行 logistic 回归分析,结果显示,GOLD 分级 3~4 级、mMRC 评分≥2 分、CTA 评分≥10 分、PS 评分≥2 分、焦虑是 LC-COPD 患者进行 COPD 治疗的危险因素(P<0.05;表 4)。

3 讨 论

本研究纳入的 210 例老年 LC 患者经肺功能检查确诊有 128 例患者合并 COPD,合并检出率为 60.95%。既往研究中,王铜等[14]报道 LC-COPD 患病率为 54.4%,Ytterstad 等[15]调查发现 LC-COPD 患病率为 39.0%,各研究文献报道的 LC-COPD 检出率差异较大,且目前尚未见关于 LC-COPD 患病率的大样本研究,因此 LC-COPD 患病率仍需进一步开展大样本流行病学调查。

本研究组间比较结果显示,老年 LC-COPD 患者与单纯 LC 患者在临床症状方面无显著差异,而在 LC 病情方面存在一定差异。单纯 LC 患者中央型 LC 占比更低,而 LC-COPD 患者中央型 LC 占比更高;组织病理学类型方面,单纯 LC 患者以腺癌为主要病理类型,鳞癌占比较低,而 LC-COPD 患者鳞癌占比更高,腺癌占比较低,且 LC-COPD 患者肿瘤 TNM 分期更晚。既往研究[16]结果显示,合并 COPD 会降低 LC 患者术后总体生存率,但受本研究观察时长限制,未能观察到 COPD 对 LC 患者生存率的影响。

本研究回归分析结果提示,男性、吸烟指数≥400 支/年、肺气肿是老年 LC-COPD 发生的危险因素,提示存在上述特征的老年 LC 患者合并 COPD 的风险更高,临床上需对该类人群针对性开展肺功能检查。吸烟是 COPD 与 LC 的共同危险因素,烟草中的各种有毒物质可显著降低机体免疫功能,促进炎症介质释放,进而增加 LC 与 COPD 发病风险。男性具有更高的烟草暴露风险,同时另有研究表明,雌激素可发挥肺功能保护作用,如增加支气管扩张、减少线粒体氧化应激、维持正常免疫功能等,而男性体内雌激素水平较低,因此发生肺部病变的风险更高[17]。肺气肿是 COPD 的特征性病理改变,是肺实质弥漫性慢性炎症、氧化应激及肺结构破坏的重要临

表3 LC-COPD治疗组与未治疗组临床资料比较

Table 3 Comparison of clinical data between LC-COPD treated group and untreated group

Item	Treated group (n=44)	Untreated group (n=84)	χ^2/t	P value
Age[n(%)]			2.307	0.129
60-80 years	20(45.45)	50(59.52)		
≥80 years	24(54.55)	34(40.48)		
Gender[n(%)]			1.602	0.206
Male	35(79.55)	58(69.05)		
Female	9(20.45)	26(30.95)		
BMI[n(%)]			2.693	0.260
<18.5 kg/m^2	5(11.36)	18(21.43)		
18.5-24.0 kg/m^2	29(65.91)	44(52.38)		
≥24.0 kg/m^2	10(22.73)	22(26.19)		
Smoking history[n(%)]	33(75.00)	54(64.29)	1.523	0.217
Smoking index[n(%)]			0.182	0.670
<400 cigarettes/year	25(56.82)	51(60.71)		
≥400 cigarettes/year	19(43.18)	33(39.29)		
Lesion site[n(%)]			2.645	0.266
Right lung	20(45.44)	32(38.09)		
Left lung	12(27.27)	35(46.67)		
Both lungs	12(27.27)	17(20.34)		
Anatomical site classification [n(%)]			2.575	0.109
Central type	12(27.27)	35(41.67)		
Peripheral type	32(72.73)	49(58.33)		
Histopathological type[n(%)]			3.149	0.369
Adenocarcinoma	22(50.00)	39(46.43)		
Squamous carcinoma	12(27.23)	33(39.39)		
Small cell lung cancer	5(11.36)	8(9.52)		
Others	5(11.36)	4(4.76)		
TNM staging[n(%)]			0.494	0.482
Ⅰ-Ⅱ	30(68.18)	52(61.90)		
Ⅲ-Ⅳ	14(31.82)	32(38.10)		
Maximum tumor diameter[n(%)]			1.186	0.276
<5 cm	35(79.55)	73(86.90)		
≥5 cm	9(20.45)	11(13.10)		
Clinical manifestation[n(%)]				
Cough	30(68.18)	51(60.71)	0.693	0.405
Expectoration	23(52.27)	50(59.52)	0.620	0.431
Dyspnea	2(4.55)	7(8.33)	0.634	0.426
Shortness of breath	21(47.73)	46(54.76)	0.573	0.449
Hemoptysis	12(27.27)	16(19.05)	1.143	0.285
Chest pain	9(20.45)	16(19.05)	0.036	0.849
Fatigue	3(6.82)	3(3.57)	0.681	0.409
Emaciation	1(2.27)	4(4.76)	0.477	0.490
Pleural effusion	8(18.18)	9(10.71)	1.398	0.237
Pulmonary atelectasis	5(11.36)	16(19.05)	1.243	0.265
Emphysema	21(47.73)	37(44.05)	0.158	0.691
FEV1%pred(%, $\bar{x}\pm s$)	65.97±13.33	66.45±14.05	0.187	0.852
FVC%pred(%,$\bar{x}\pm s$)	103.21±25.79	103.74±26.71	0.108	0.914
FEV1/FVC(%,$\bar{x}\pm s$)	63.92±12.58	64.05±13.43	0.053	0.958
Diffusion function damage [n(%)]			0.081	0.782
Normal	24(54.55)	45(53.57)		
Mild decline	13(29.55)	21(25.00)		
Moderate decline	3(6.82)	11(13.10)		
Severe decline	4(9.09)	7(8.33)		
GOLD grading[n(%)]			13.336	<0.001
1-2	30(68.18)	78(92.86)		
3-4	14(31.82)	6(7.14)		
mMRC score[n(%)]			9.646	0.002
0-1 points	14(31.82)	51(60.71)		
≥2 points	30(68.18)	33(39.29)		
CAT score[n(%)]			9.578	0.002
<10 points	11(25.00)	45(53.57)		
≥10 points	33(75.00)	39(46.43)		
PS score[n(%)]			9.043	0.003
0-1 points	29(65.91)	74(88.10)		
≥2 points	15(34.09)	10(11.90)		
Anxiety[n(%)]	23(52.27)	11(13.10)	22.720	<0.001
Depression[n(%)]	14(31.82)	16(19.05)	2.624	0.105

LC: lung cancer; COPD: chronic obstructive pulmonary diseas; BMI: body mass index; TNM: tumor node metastasis; FEV1% pred: forced expiratory volume in one second percent predicted; FVC% pred: forced vital capacity percent predicted; FEV1: forced expiratory volumem in one second; FVC: forced vital capacity; MMV: maximum expiratory volume; GOLD: global initiative for chronic obstructive lung disease; mMRC: modified medical research council scale; CAT: COPD assessment test; PS: performance status.

表4 LC-COPD患者进行COPD治疗的logistic回归分析

Table 4 Logistic regression analysis of COPD treatment in LC-COPD patients

Factor	β	SE	$Wald\ \chi^2$	OR	95%CI	P value
GOLD grade 3-4	0.774	0.319	5.887	2.168	1.160-4.052	0.016
mMRC score ≥2 points	0.553	0.175	9.986	1.738	1.234-2.450	0.002
CAT score ≥10 points	0.679	0.254	7.146	1.972	1.199-3.244	0.008
PS score ≥2 points	0.339	0.143	5.620	1.404	1.060-1.858	0.018
Anxiety	0.289	0.103	7.873	1.335	1.091-1.634	0.005

LC: lung cancer; COPD: chronic obstructive pulmonary diseas; GOLD: global initiative for chronic obstructive lung disease; mMRC: modified medical research council scale; CAT: COPD assessment test; PS: performance status.

床表现,本研究发现肺气肿是老年LC-COPD的危险因素。因此建议临床重点关注男性、吸烟指数≥400支/年以及出现肺气肿的老年LC患者,规范开展肺功能检查,以便尽早明确COPD共病状态并开展专项管理。

对于LC-COPD共病患者,临床需注意同时兼顾两种疾病的治疗,但由于LC对患者生命健康的危害更大,临床实践中往往更注重对LC的干预,而忽视了对COPD专项治疗。本研究结果显示,128例老年LC-COPD共病患者中,仅44例接受了COPD专项治疗,其中有50%(22例)患者存在COPD用药不足或过度等不规范用药问题,提示LC-COPD共病患者COPD专项治疗覆盖率较低,治疗规范性欠佳。这种现象可能与不同地区医疗资源分配不均、

COPD 治疗经济负担高、患者治疗依从性差等多重因素相关[18]。

进一步回归分析结果显示,GOLD 分级 3~4 级、mMRC 评分≥2 分、CAT 评分≥10 分、PS 评分≥2 分及焦虑是老年 LC-COPD 共病患者进行 COPD 专项治疗的影响因素,提示 COPD 病情严重、体力状况差以及合并焦虑的 LC-COPD 共病患者更易获得临床关注,进而接受 COPD 专项治疗。故建议临床应重视对老年 LC-COPD 共病情况的评估,根据患者 COPD 病情严重程度,给予指南推荐的规范化专项治疗方案,以控制 COPD 病情进展,减轻其对 LC 预后的不良影响。

综上,老年 LC-COPD 共病发生率高,临床需重点对男性、吸烟指数≥400 支/年、出现肺气肿的老年 LC 患者开展肺功能评估;同时,LC-COPD 共病者 COPD 专项治疗率低,且存在相当比例的用药不规范问题,COPD 病情严重、体力状况差以及合并焦虑者更易得到 COPD 专项治疗干预。建议临床积极开展 COPD 病情分层评估,给予患者对应的规范化用药干预措施,从而有效控制 COPD 病情,减轻其对 LC 的不良影响。

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(编辑: 龚志忠)