·临床研究·

老年孤立性肺结节住院患者治疗决策困境现状及影响因素研究

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【摘 要】 **目的** 探讨老年孤立性肺结节(SPN)住院患者治疗决策困境现状并分析其影响因素。**方法** 选择2023年2月至2025年2月江苏省人民医院收治的148例老年SPN住院患者为研究对象,其中146例患者问卷有效回收。采用决策困境量表(DCS)对患者治疗决策困境状况展开调查,根据决策困境量表(DCS)评分,将146例患者分为高分组(DCS≥37.5分,37例)与非高分组(DCS<37.5分,109例)。采用SPSS 25.0统计软件进行数据分析,根据数据类型分别采用t检验或χ^2检验进行组间比较。采用多因素logistic回归分析评估老年SPN住院患者存在严重决策困境的影响因素。**结果** 148例调查问卷,有效回收率为98.65%(146/148)。146例老年SPN住院患者DCS最终总得分为(29.42±5.09)分,决策有效者69例(47.26%),决策困境者77例(52.74%),严重决策困境者37例(25.34%)。高分组患者焦虑倾向、抑郁倾向、衰弱及家庭功能差占比均高于非高分组;肺部疾病史、无症状占比则低于非高分组,差异有统计学意义(P<0.05)。多因素logistic回归分析显示,焦虑倾向(OR=3.031,95%CI 1.686~5.450;P<0.05)、抑郁倾向(OR=4.047,95%CI 2.604~6.290;P<0.05)、衰弱(OR=5.562,95%CI 3.645~8.488;P<0.05)及家庭功能差(OR=4.660,95%CI 3.054~7.111;P<0.05)均为老年SPN住院患者存在严重决策困境的危险因素;肺部疾病史(OR=0.384,95%CI 0.020~0.811;P<0.05)及无症状(OR=0.375,95%CI 0.017~0.799;P<0.05)则为保护因素。**结论** 老年SPN住院患者决策困境形势严峻,临床可通过评估患者焦虑倾向、抑郁倾向、衰弱、家庭功能、肺部疾病史及临床症状,判断决策困境状况,及时实施决策支持策略,提升决策质量。

【关键词】 老年人;孤立性肺结节;治疗决策;决策困境;影响因素
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Status quo and influencing factors of treatment decisional conflict in elderly inpatients with solitary pulmonary nodules

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【**Abstract**】 **Objective** To explore the status quo of treatment decisional conflict in elderly inpatients with solitary pulmonary nodules (SPN) and analyze its influencing factors. **Methods** A total of 148 elderly inpatients with SPN admitted to our hospital from February 2023 to February 2025 were enrolled, and finally 146 valid questionnaires were collected. Decisional conflict scale (DCS) was used to investigate the treatment decisional conflict of patients. According to the DCS score, 146 participants were divided into a high score group (score ≥37.5 points, 37 cases) and a non-high score group (score <37.5 points, 109 cases). SPSS 25.0 was employed for data processing, and t test or χ^2 test was applied for comparison between groups depending on data type. Multivariate logistic regression analysis was performed to identify the influencing factors for severe decisional conflict in elderly SPN inpatients. **Results** Among the 148 patients, 146 questionnaires were effectively recovered, with an effective rate of 98.65%. The final total score of DCS was (29.42±5.09) points in the 146 participants. There were 69 cases (47.26%) with effective decision, 77 cases (52.74%) with decisional conflict, and 37 cases (25.34%) with severe decisional conflict. The high score group exhibited significantly larger proportions of patients with anxiety tendency, depression tendency, frailty and poor family function, while smaller proportions of history of lung disease and asymptomatic condition than the non-high score group (P<0.05). Multivariate logistic regression analysis suggested that anxiety tendency (OR=3.031, 95%CI 1.686-5.450; P<0.05), depression tendency (OR=4.047, 95%CI 2.604-6.290; P<0.05), frailty (OR=5.562, 95%CI 3.645-8.488; P<0.05) and poor family function (OR=4.660, 95%CI 3.054-7.111; P<0.05) were risk factors of severe decisional conflict in elderly SPN inpatients, and history of lung disease (OR=0.384, 95%CI 0.020-0.811; P<0.05) and asymptomatic condition (OR=0.375, 95%CI 0.017-0.799; P<0.05) were protective factors. **Conclusion** The situation of decisional conflict is severe in elderly SPN inpatients. Clinically, it is necessary to assess decisional

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conflict by evaluating the anxiety tendency, depression tendency, frailty, family function, history of lung disease and clinical symptoms, and implement the decisional conflict support strategy in time to improve the decision-making quality.

【Key words】 aged; solitary pulmonary nodules; treatment decision-making; decisional conflict; influencing factors

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孤立性肺结节(solitary pulmonary nodule,SPN)病因种类繁多,包括炎症、恶性与良性肿瘤、真菌感染等,且SPN体积小,定性诊断相对困难,因此治疗策略尚不统一[1]。老年人是SPN好发人群,因具有器官功能衰退、合并症多等特点,其SPN诊疗难度进一步升高[2]。对于低恶性风险的SPN,一般建议定期随访观察,中高风险者则需要缩短随访间隔时间,同时考虑病理活检或胸外科手术干预,由于不同治疗方案各具优缺点,患者在入院后确定治疗方案时难以做决定[3]。患者在治疗风险、疗效及预后等影响下,无法决定治疗方案,这种情况被称为决策困境,可导致治疗延迟,影响疗效及预后[4]。治疗决策困境的影响因素是近年研究的热点,可能与负性情绪、认知水平、疾病特征等有关[5]。目前,对于老年SPN住院患者治疗决策困境现状及影响因素的报道较少见,本研究对此进行探讨,为老年SPN住院患者决策辅助措施的制定提供可靠数据。

1 对象与方法

1.1 研究对象

选择2023年2月至2025年2月江苏省人民医院收治的148例老年SPN住院患者为研究对象。共发放148份调查问卷,有2例患者因问卷调查全部填写为同一选项判断为无效问卷,予以剔除,共收回有效问卷146份,有效回收率为98.65%。本研究获得江苏省人民医院医学伦理委员会审批(批号:20231784),患者及家属对研究内容知情并签署知情同意书。本研究符合《赫尔辛基宣言》。

纳入标准:符合《中国肺结节病诊断和治疗专家共识》[6]诊断标准,胸部高分辨率CT显示SPN,结节最大径≤3.0 cm,且无远处转移迹象;年龄≥60岁;意识清醒,视听功能正常,能配合问卷调查。排除标准:既往肺部手术治疗史;合并心肌梗死等严重器官功能衰竭;合并自身免疫性疾病或恶性肿瘤;合并帕金森病等神经系统疾病。

1.2 方法

1.2.1 资料收集 经住院电子病历系统获取一般个人信息、既往史、临床症状等。

1.2.2 问卷调查 所有问卷调查均在安静、整洁的病房内,以一对一的形式完成。(1)治疗决策困境:使用决策困境量表(decisional conflict scale,DCS)[7]评估,该量表包含信息提供、价值观明确、社会支持、不确定性及决策有效性共5个维度,16个条目,各条目以0~4分计分,初始得分/条目数×25为最终得分,最终总分范围为0~100分,得分越高,治疗决策困境越严重。DCS总分<25.0分提示决策有效,25.0~37.5分提示存在决策困境,≥37.5分提示存在严重决策困境。根据DCS得分将老年SPN住院患者分为高分组(DCS≥37.5分,37例)与非高分组(DCS<37.5分,109例)。(2)焦虑及抑郁:使用焦虑自评量表(Zung self-rating anxiety scale,SAS)、抑郁自评量表(Zung self-rating depression scale,SDS)[8]评估,两个量表各包含20个条目,各条目以1~4分计分,将初始总得分转换为标准分,标准分=初始总得分×1.25,SAS标准分≥50分为有焦虑倾向,SDS标准分≥53分为有抑郁倾向。(3)衰弱:使用衰弱筛查量表(fatigue resistance ambulation illnesses and loss of weight,FRAIL)[9]评估,包含疲乏、阻力增加或耐力减退、自由活动下降、疾病共病、体质量下降共5项内容,存在1项阳性计1分,总分范围0~5分,总分≥3分提示存在衰弱。(4)家庭功能:使用家庭功能评定量表(family assessment device,FAD)[10]评估,量表包含问题解决、沟通、角色、情感反应、情感介入、行为控制及总功能共7个维度,60个条目,各条目以1~4分计分,总分为60~240分,得分越高,家庭功能越差,总分>180分提示家庭功能差。

1.3 统计学处理

采用SPSS 25.0统计软件进行数据分析。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。采用多因素logistic回归分析评估老年SPN住院患者存在严重决策困境的影响因素。$P<0.05$为差异有统计学意义。

2 结 果

2.1 老年SPN住院患者治疗决策困境情况

146例老年SPN住院患者DCS最终总得分为(29.42±5.09)分,<25.0分的决策有效者69例(47.26%),≥25.0分的决策困境者77例(52.74%),

其中≥37.5 分的严重决策困境者 37 例(25.34%)。

2.2 两组患者临床资料

高分组患者焦虑倾向、抑郁倾向、衰弱及家庭功能差占比均高于非高分组;肺部疾病史及无症状占比则低于非高分组,差异均有统计学意义(P<0.05;表 1)。

2.3 老年 SPN 住院患者存在严重决策困境的影响因素

以严重决策困境为因变量,单因素分析中有统计学意义的指标为自变量,赋值代入多因素 logistic 回归方程(肺部疾病史:有=0,无=1;焦虑倾向、抑郁倾向、衰弱均为无=0,有=1;家庭功能:良好=0,差=1;临床症状:无症状=0,其他症状=1),结果显示焦虑倾向、抑郁倾向、衰弱及家庭功能差均为老年 SPN 住院患者存在严重决策困境的危险因素(P<0.05);肺部疾病史及无症状则为保护因素(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	High score group(n=37)	Non-high score group(n=109)	χ^2/t	P value
Gender[n(%)]			0.256	0.613
Male	16(43.24)	42(38.53)		
Female	21(56.76)	67(61.47)		
Age(years, $\bar{x}\pm s$)	68.36±4.21	67.82±3.98	0.703	0.483
Body mass index(kg/m^2, $\bar{x}\pm s$)	23.16±2.09	22.89±1.93	0.720	0.473
Marital status[n(%)]			1.317	0.251
Married	25(67.57)	84(77.06)		
Unmarried/divorced/widowed	12(32.43)	25(22.94)		
Education level[n(%)]			4.671	0.097
Primary school or below	13(35.13)	24(22.02)		
Junior or senior high school	18(48.65)	49(44.95)		
Junior college or above	6(16.22)	36(33.03)		
Payment method of medical expense[n(%)]			0.864	0.649
Urban medical insurance/new rural cooperative medical care system	28(75.67)	89(81.65)		
Commercial insurance	6(16.22)	15(13.76)		
Self-paying	3(8.11)	5(4.59)		
Smoking history[n(%)]	12(32.43)	31(28.44)	0.212	0.645
History of lung disease[n(%)]	2(5.41)	22(20.18)	4.392	0.036
Coronary heart disease[n(%)]	7(18.92)	19(17.43)	0.042	0.838
Diabetes mellitus[n(%)]	3(8.11)	8(7.34)	0.023	0.878
Hypertension[n(%)]	11(29.73)	34(31.19)	0.028	0.868
Anxiety tendency[n(%)]	12(32.43)	16(14.68)	5.617	0.018
Depression tendency[n(%)]	14(37.84)	17(15.60)	8.171	0.004
Frailty[n(%)]	16(43.24)	21(19.27)	8.394	0.004
Family function[n(%)]			9.116	0.003
Good	22(59.46)	91(83.49)		
Poor	15(40.54)	18(16.51)		
Clinical symptom[n(%)]				
Asymptom(physical examination)	19(51.35)	81(74.31)	6.748	0.009
Cough	6(16.22)	11(10.09)	1.007	0.316
Chest pain	5(13.51)	9(8.26)	0.880	0.348
Chest tightness	5(13.51)	7(6.42)	1.842	0.175
Dyspnea	3(8.11)	4(3.67)	1.192	0.275
Fever	2(5.41)	4(3.67)	0.211	0.646
Hemoptysis	1(2.70)	2(1.83)	0.103	0.748

表 2 老年 SPN 住院患者严重决策困境的多因素 logistic 回归分析

Table 2 Multivariate logistic regression analysis of severe decisional conflict in elderly inpatients with SPN

Factor	β	SE	$Wald\ \chi^2$	P value	OR	95%CI
History of lung disease	−0.956	0.322	8.815	0.003	0.384	0.020−0.811
Anxiety tendency	1.109	0.337	10.829	0.001	3.031	1.686−5.450
Depression tendency	1.398	0.344	16.516	<0.001	4.047	2.604−6.290
Frailty	1.716	0.409	17.603	<0.001	5.562	3.645−8.488
Poor family function	1.539	0.369	17.395	<0.001	4.660	3.054−7.111
Asymptom(physical examination)	−0.980	0.284	11.907	0.001	0.375	0.017−0.799

SPN: solitary pulmonary nodule.

3 讨 论

SPN若选择外科手术治疗,具有疗效确切的优点,但也存在创伤大的缺点,若切除的是良性结节,还存在过度诊疗风险,若选择定期随访观察干预,也存在影像学检查放射性暴露、结节进展等不良事件风险,因此SPN住院患者确定治疗方案时易踌躇,甚至要求反复修改治疗方案,影响临床治疗[11,12]。老年患者、患者家属、医护团队共同构成治疗决策的主体,近年研究发现,决策主体的治疗决策过程受疾病、家庭、社会因素等影响,且决策主体合作性不佳,常难以做出使患者临床获益最佳的治疗决策[13]。这种难以做出治疗决策的情况被称为决策困境,可造成治疗延误,甚至引起病情恶化,影响患者预后[14]。本研究对老年SPN住院患者治疗决策困境展开调查,发现超过半数的受调查者存在决策困境(52.74%),且有25.34%的患者存在严重决策困境,值得临床重视。

由于老年SPN患者及其家属需要在一定时间内衡量不同治疗方案的优缺点,即在较短时间内获取包括疾病基本信息、治疗效果、风险及其临床获益程度等,认知负荷大,认知处理能力有限,易出现决策困境[15]。本研究中,两组老年SPN住院患者受教育程度无明显差异,但高分组肺部疾病史占比明显低于非高分组,回归分析也显示,肺部疾病史是患者存在严重决策困境的保护因素,考虑既往患过肺部疾病的老年SPN患者可能对肺部疾病有一定认知,在发现SPN后认知负荷相对较小,不易出现严重决策困境[16]。另外,衰弱作为老年患者常见非特异性状态,以多器官功能下降、抗应激能力减退为特征,与多种老年疾病预后密切相关[17]。本研究结果显示,衰弱是老年SPN住院患者存在严重决策困境的危险因素,分析原因可能为衰弱者疲劳感更高,认知能力减退更明显,易因疲劳感而选择更为保守的治疗方案,忽略疾病及治疗对长期预后的影响,加之认知能力下降,进一步影响决策判断,表现出严重决策困境[18]。

另据文献报道,疾病给患者带来沉重精神负担,导致焦虑及抑郁等负性情绪升高,负性情绪又易增加患者对治疗的不信任感,甚至对预后转归丧失信心,影响患者对治疗风险及获益的判断[19]。本研究中,焦虑倾向及抑郁倾向均为老年SPN住院患者存在严重决策困境的危险因素,可能与焦虑、抑郁情绪导致患者治疗信心下降,影响患者做出治疗决策有关。良好的情感支持有利于缓解患者负性情绪,提升治疗信心,家属作为治疗决策的主体部分,不仅影响决策质量,也是为患者提供情感支持的重要成员,患者若能获得来自家属的情感支持,则能提升对治疗及预后的信心,更主动积极地参与治疗决策[20,21]。本研究结果显示,家庭功能差也是患者严重决策困境的危险因素,考虑家庭功能差者难以获得家属的情感支持,可能使治疗信心下降,影响其做出治疗决策。值得注意的是,本研究中,无症状是严重决策困境的保护因素,究其原因可能为无症状的老年SPN住院患者主要由体检发现,无论是患者主动入院体检,还是在家属劝说下体检,对健康状况及疾病治疗的认知能力较高,常能积极参与治疗决策,因此不易出现严重决策困境[22]。然而,本研究作为单中心小样本量研究,存在代表性欠缺等不足,未来还需加入多中心老年SPN住院患者,扩大样本量,对本研究结果加以验证。

综上所述,老年SPN住院患者易出现治疗决策困境,身体机能及心理状况对决策困境的形成均有影响,存在焦虑倾向、抑郁倾向、衰弱及家庭功能差的患者更易出现严重决策困境,有肺部疾病史及无症状者严重决策困境风险较低,临床可以此为老年SPN住院患者制定个性化的决策辅助措施,以缓解决策困境,提升决策质量。

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