·临床研究·

老年恶性肿瘤患者癌痛镇痛效果的影响因素

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【摘 要】 **目的** 探讨老年恶性肿瘤患者癌痛镇痛效果的影响因素。**方法** 选择昆明医科大学第三附属医院2022年1月至2024年1月收治的226例老年恶性肿瘤伴癌痛患者为研究对象,参照《美国国家综合癌症网络(NCCN)成人癌性疼痛控制指南》对患者进行规范化镇痛治疗,治疗期间每天应用数字分级法(NRS)评分评估患者疼痛强度,将镇痛治疗1周后疼痛缓解率≥50%者纳为良好组(196例),<50%者纳为不良组(30例),同时收集患者人口学资料、癌症病情相关资料、镇痛相关资料等。采用SPSS 26.0统计软件进行数据分析,根据数据类型行χ^2检验。采用二元logistic回归模型分析影响患者癌痛镇痛效果的相关因素。**结果** 不良组患者知晓自身病情、发生淋巴结转移、癌症分期Ⅲ~Ⅳ期、入院时初始疼痛强度重度、爆发痛、镇痛不良反应及焦虑者占比高于良好组,差异有统计学意义(P<0.05)。二元logistic回归分析提示,知晓自身病情(OR=1.376,95%CI 1.167~1.622)、淋巴结转移(OR=1.976,95%CI 1.218~3.206)、癌症分期Ⅲ~Ⅳ期(OR=2.046,95%CI 1.424~2.941)、入院时初始疼痛强度重度(OR=1.647,95%CI 1.216~2.232)、爆发痛(OR=2.173,95%CI 1.096~4.306)、镇痛不良反应(OR=1.322,95%CI 1.080~1.617)及焦虑(OR=1.215,95%CI 1.111~1.330)是患者镇痛效果不良的危险因素。**结论** 老年恶性肿瘤癌痛住院患者镇痛治疗效果受肿瘤相关因素、癌痛本身特点、镇痛不良反应、社会心理因素等多种因素影响,针对具有镇痛效果不佳危险因素者,可适当调整镇痛用药方案,提高镇痛效果。

【关键词】 恶性肿瘤;癌痛;镇痛效果;影响因素
【中图分类号】 R730.6 【文献标志码】 A 【DOI】 10.11915/j.issn.1671-5403.2026.01.004

Influencing factors for analgesic efficacy for cancer pain in elderly patients with malignant tumors

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【**Abstract**】 **Objective** To explore the influencing factors for analgesic efficacy in elderly patients with malignant tumors complicated with cancer pain. **Methods** A total of 226 elderly patients with malignant tumors and concomitant cancer pain admitted to our hospital from January 2022 to January 2024 were enrolled as the research subjects. All of them received standardized analgesic therapy according to the National Comprehensive Cancer Network (NCCN) Guidelines for Cancer Pain Control in Adults. The pain intensity was evaluated by numerical rating scale (NRS) every day during treatment. After one week of analgesic treatment, the patients getting a pain relief rate of ≥50% were included in a good analgesia group (196 cases), and those with the rate <50% in a poor analgesia group (30 cases). The demographic data, cancer-related data and analgesia-related data were collected. SPSS statistics 26.0 was performed for data analysis. *Chi*-square test was carried out depending on data type. Binary logistic regression model was employed to analyze the related factors affecting the analgesic efficacy of cancer pain in the patients. **Results** The proportions of patients with knowing own conditions, lymph node metastasis, cancer stage Ⅲ-Ⅳ, severe initial pain intensity at admission, breakthrough pain, adverse analgesic reactions and anxiety in poor analgesia group were higher than those in good analgesia group, the differences were statistically significant. (P<0.05). Binary logistic regression analysis revealed that awareness of their own conditions (OR=1.376, 95%CI 1.167-1.622), lymph node metastasis (OR=1.976, 95%CI 1.218-3.206), cancer stage Ⅲ-Ⅳ (OR=2.046, 95%CI 1.424-2.941), severe initial pain intensity at admission (OR=1.647, 95%CI 1.216-2.232), breakthrough pain (OR=2.173, 95%CI 1.096-4.306), analgesics-induced adverse reactions (OR=1.322, 95%CI 1.080-1.617) and anxiety (OR=1.215, 95%CI 1.111-1.330) were risk factors for poor analgesic effect. **Conclusion** Analgesic efficacy of elderly inpatients with cancer pain is affected by many factors, such as tumor related factors, characteristics of cancer pain, analgesics-induced adverse reactions and social psychological factors. For the patients with poor analgesic efficacy, it is necessary to adjust appropriately analgesic regimens to enhance the efficacy.

收稿日期: 2025-01-06; **接受日期**: 2025-02-27
基金项目: 云南省教育厅科学研究基金(2023Y0759)
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【Key words】 malignant tumors; cancer pain; analgesic efficacy; influencing factor
This work was supported by the Scientific Research Fund of Yunnan Provincial Education Department (2023Y0759).
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疼痛是恶性肿瘤患者常见症状,有研究数据表示,60%~80%的进展期肿瘤患者伴有疼痛症状,疼痛被列为第五大生命体征,疼痛若不能有效控制,将降低恶性肿瘤患者治疗配合度,影响患者预后及生活质量[1]。尽管有研究表示,在准确评估疼痛程度的基础上进行镇痛治疗能有效控制疼痛,但当前住院恶性肿瘤患者的疼痛控制状况依旧不容乐观[2]。恶性肿瘤镇痛效果受多种因素影响,包括肿瘤因素、治疗因素、社会心理因素等,当前关于恶性肿瘤患者癌痛治疗效果相关报道较多,但尚未形成共识[3]。本研究对老年恶性肿瘤癌痛患者住院期间镇痛效果进行统计与分析,从多角度分析可能影响镇痛效果的相关因素,旨在为老年恶性肿瘤癌痛患者的镇痛治疗提供更为详细的指导。

1 对象与方法

1.1 研究对象

选择昆明医科大学第三附属医院 2022 年 1 月至 2024 年 1 月收治的 226 例老年恶性肿瘤患者伴癌痛患者为研究对象。纳入标准:年龄≥65 岁;经病理学或细胞学检查确诊为恶性肿瘤;疼痛数字分级法(numerical rating scale, NRS)评分≥1 分;住院期间内参照《美国国家综合癌症网络(national comprehensive cancer network, NCCN)成人癌性疼痛控制指南》[4]相关内容进行规范化镇痛治疗;意识清楚,可配合完成相关调查。排除标准:病情危重、沟通障碍、精神障碍等不能配合调查;合并其他急慢性疼痛性疾病。本研究经医院医学伦理委员会批准(批号:SLKYLX2023-04),参与者知情且签署知情同意书。

1.2 方法

1.2.1 镇痛效果评估 治疗期间每天应用 NRS 评分工具评估患者疼痛强度。疼痛缓解率=(入院时 NRS 评分-住院期间平均 NRS 评分)/入院时 NRS 评分×100%。镇痛治疗 1 周后疼痛缓解率≥50%则认为疼痛缓解,镇痛疗效良好,<50%为镇痛效果不良[5,6]。

1.2.2 资料收集 收集患者年龄、性别、文化程度、宗教信仰、婚姻状况、居住地、家庭月收入、医疗支付方式、是否知晓自身病情、原发肿瘤类型、是否合并淋巴结转移、癌症分期、入院时疼痛强度(NRS 评分 1~3 分为轻度,4~6 分为中度,7~10 分为重度)、主要疼痛部位、有无爆发痛[充分镇痛背景下(NRS 评分≤3 分)出现短暂的疼痛加剧现象(NRS≥4 分)]、用药阶梯、给药途径、是否联合用药、联合抗肿瘤治疗(手术/放疗/化疗/介入治疗)、镇痛不良反应、焦虑[焦虑自评量表(self-rating anxiety scale, SAS)[7]≥53 分]及抑郁(抑郁自评量表(self-rating depression scale, SDS)[8]≥50 分]资料。

1.3 统计学处理

采用 SPSS 26.0 统计软件进行数据处理。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。采用二元 logistic 回归模型分析影响老年恶性肿瘤癌痛住院患者镇痛治疗效果的危险因素。$P<0.05$ 为差异有统计学意义。

2 结 果

2.1 老年恶性肿瘤患者镇痛效果

226 例老年恶性肿瘤癌痛患者经镇痛治疗后,有 196 例患者经治疗后疼痛缓解,将其纳为良好组,其余 30 例患者镇痛效果不良(占比 13.27%),将其纳为不良组。治疗期间有 49 例患者出现恶心呕吐、便秘等不良反应,经对症处理后不良反应均好转,可耐受镇痛治疗。

2.2 不同临床特征患者癌痛镇痛效果

不良组患者知晓自身病情、发生淋巴结转移、癌症分期Ⅲ~Ⅳ期、入院时初始疼痛强度重度、爆发痛、镇痛不良反应及焦虑者占比高于良好组,差异有统计学意义($P<0.05$;表 1)。

2.3 影响患者镇痛效果的二元 logistic 回归分析

以老年恶性肿瘤癌痛患者镇痛治疗效果作为因变量(Y,镇痛效果不良=0,镇痛效果良好=1),单因素分析中有统计学意义的指标作为自变量。知晓自身病情(X1,否=0,是=1)、淋巴结转移(X2,否=0,是=1)、癌症分期(X3,Ⅰ~Ⅱ期=0,Ⅲ~Ⅳ期=1)、出入院时初始疼痛强度重度(X4,轻度=1,中度=2,重度=3)、爆发痛(X5,否=0,是=1)、镇痛不良反应(X6,否=0,是=1)、焦虑(X7,否=0,是=1),行二元 logistic 回归分析提示,知晓自身病情、淋巴结转移、癌症分期Ⅲ~Ⅳ期、入院时初始疼痛强度重度、爆发痛、镇痛不良反应及焦虑是患者镇痛效果不良的危险因素(表 2)。

表1 不同临床特征患者癌痛镇痛效果比较

Table 1 Comparison of analgesic effect of cancer pain among patients with different clinical characteristics [n(%)]

Item	Poor analgesia group (n=30)	Good analgesia group (n=196)	χ^2	P value
Age			0.119	0.730
60-80 years	18(60.00)	124(63.27)		
≥80 years	12(40.00)	72(36.73)		
Gender			0.332	0.564
Male	17(56.67)	100(51.02)		
Female	13(43.33)	96(48.98)		
Education level			4.565	0.102
Primary school or below	13(43.33)	96(48.98)		
Middle school	6(20.00)	61(31.12)		
Junior college or above	11(36.67)	39(19.90)		
Religious belief	10(33.33)	57(29.08)	0.226	0.635
Marital status			0.047	0.829
Married	22(73.33)	140(71.43)		
Unmarried/divorced/widowed	8(26.67)	56(28.57)		
Place of residence			0.676	0.411
Urban area	16(53.33)	120(61.22)		
Rural area	14(46.67)	76(38.78)		
Family monthly income			1.347	0.510
<3 000 yuan	6(20.00)	33(16.84)		
3 000-<6 000 yuan	13(43.33)	107(54.59)		
≥6 000 yuan	11(36.67)	56(28.57)		
Medical payment method			0.915	0.633
Medical insurance	15(50.00)	116(59.18)		
New rural cooperative medical system	14(46.67)	74(37.76)		
Other	1(3.33)	6(3.06)		
Awareness of own conditions	27(90.00)	99(50.51)	16.447	<0.001
Primary tumor type			0.707	0.950
Respiratory system tumor	10(33.33)	70(35.71)		
Digestive system tumor	12(40.00)	72(36.74)		
Breast cancer	2(6.67)	20(10.20)		
Reproductive urinary system tumor	5(16.67)	26(13.27)		
Other	1(3.33)	8(4.08)		
Lymph node metastasis	22(73.33)	98(50.00)	5.688	0.017
Cancer staging			6.478	0.011
Ⅰ-Ⅱ	10(33.33)	114(58.16)		
Ⅲ-Ⅳ	20(66.67)	82(41.84)		
Initial pain intensity at admission			10.318	0.006
Mild	6(20.00)	94(47.96)		
Moderate	11(36.67)	61(31.12)		
Severe	13(43.33)	41(20.92)		
Main pain site			1.933	0.858
Head and neck	1(3.33)	4(2.04)		
Thorax	7(23.34)	42(21.43)		
Shoulder and back	4(13.33)	37(18.88)		
Lumbosacrum and perineum	5(16.67)	27(13.78)		
Abdomen	12(40.00)	84(42.85)		
Limbs	1(3.33)	2(1.02)		
Breakthrough pain	19(63.33)	68(34.69)	9.013	0.003
Medication ladder			3.021	0.221
Non-steroidal anti-inflammatory drug	7(23.33)	78(39.80)		
Weak opioid drug	12(40.00)	60(30.61)		
Strong opioid drug	11(36.67)	58(29.59)		
Route of administration			0.439	0.803
Oral administration	11(36.67)	62(31.63)		
Subcutaneous injection	14(46.67)	104(53.06)		
Transdermal patch	5(16.66)	30(15.31)		
Medication regimen			6.681	0.083
Single drug	24(80.00)	116(59.18)		
Non-steroidal drugs + weak opioids	3(10.00)	43(21.94)		
Non-steroidal drugs + strong opioids	2(6.67)	35(17.86)		
Strong opioids + anticonvulsants	1(3.33)	2(1.02)		
Administration method			1.681	0.431
Scheduled	7(23.33)	41(20.92)		
On-demand	15(50.00)	120(61.22)		
Scheduled and on-demand	8(26.27)	35(17.86)		
Changing analgesic drug or increasing drug dose when the pain was not relieved	5(16.67)	60(30.61)	2.470	0.116
Combined anti-tumor therapy	11(36.67)	61(31.12)	0.368	0.544
Adverse analgesic reactions	12(40.00)	37(18.88)	6.836	0.009
Anxiety	20(66.67)	74(37.76)	8.952	0.003
Depression	6(20.00)	36(18.37)	0.046	0.830
Psychological distress			3.049	0.081
Mild	6(20.00)	71(36.22)		
Moderate-to-severe	24(80.00)	125(63.78)		

表 2 影响患者镇痛效果的二元 logistic 回归分析

Table 2 Binary logistic regression analysis of factors influencing analgesic effect

Factor	β	*SE*	*Wald* χ^2	*OR*	95%*CI*	*P* value
Awareness of own conditions	0.319	0.084	14.422	1.376	1.167-1.622	<0.001
Lymph node metastasis	0.681	0.247	7.602	1.976	1.218-3.206	0.006
Cancer stage Ⅲ-Ⅳ	0.716	0.185	14.979	2.046	1.424-2.941	<0.001
Initial pain intensity at admission						
Mild	-	-	-	1.000	-	-
Moderate	0.335	0.267	1.574	1.398	0.828-2.359	0.210
Severe	0.499	0.155	10.364	1.647	1.216-2.232	0.001
Breakthrough pain	0.776	0.349	4.944	2.173	1.096-4.306	0.027
Adverse analgesic reactions	0.279	0.103	7.337	1.322	1.080-1.617	0.007
Anxiety	0.195	0.046	17.970	1.215	1.111-1.330	<0.001

3 讨 论

癌痛控制及其影响因素是全球性癌痛管理研究的重要课题,我国卫计委于 2011 年倡导建立“癌痛规范化治疗示范病房”,旨在为广大癌痛患者提供优质的科学治疗服务,提高其生存质量[9]。目前,癌痛未能得到有效控制是一个普遍现象,本研究中 226 例老年恶性肿瘤患者中有 30 例镇痛效果不良,占比 13.27%,与既往研究结果相似[10]。明确影响癌痛治疗效果的相关因素,对于指导临床镇痛具有重要意义。

本研究结果显示,发生淋巴结转移者癌痛镇痛效果不良发生风险是无淋巴结转移者的 1.976 倍;癌症分期Ⅲ~Ⅳ期者镇痛效果不良风险是Ⅰ~Ⅱ期者的 2.046 倍。这与发生淋巴结转移及癌症分期Ⅲ~Ⅳ期者病情进展更严重,肿瘤侵犯、转移范围大所致的疼痛更为复杂且更难控制有关[11]。因此,建议临床针对发生淋巴结转移及癌症分期Ⅲ~Ⅳ期者联合应用药物、神经阻滞、射频疗法等多种镇痛方式,以便更好地控制癌痛。

癌痛本身特点也是影响其最终镇痛效果的重要因素,本研究结果显示,入院时初始疼痛强度为重度以及存在爆发痛者更易出现镇痛效果不佳。其中初始疼痛程度为重度者往往癌痛情况更为复杂,镇痛所需的阿片类药物剂量更高,镇痛所需时间更长。爆发痛是指患者在充分镇痛的背景下,自发或触发引起的短暂性疼痛加剧[12]。爆发痛是预测疼痛控制难易程度的重要指标,有研究数据表示,无爆发痛患者镇痛治疗后癌痛缓解率在 80%左右,而存在癌性爆发痛者癌痛缓解率仅为 25%[13]。这与癌性爆发痛具有不可预测性、难以控制有关。此外,本研究还发现出现镇痛不良反应者镇痛效果不佳风险是无不良反应者的 1.322 倍,提示镇痛不良反应将影响最终镇痛效果。这与镇痛不良反应增加患者镇痛负担、同时也降低患者镇痛治疗依从性、进而影响镇痛效果相关。

疼痛是一种主观感受,不同个体之间的疼痛感受及镇痛效果之间存在较大差异,有研究表示,除了肿瘤及治疗相关因素外,人口学因素及精神心理状况也会影响患者癌痛镇痛效果[14]。本研究结果显示,知晓自身病情的老年恶性肿瘤患者镇痛效果不良风险更高,分析其原因可能是恶性肿瘤作为重大应激事件,知晓自身病情者对疾病存在恐惧感,对治疗的态度更偏向消极,进而影响镇痛治疗配合度,降低镇痛治疗效果。恶性肿瘤患者通常存在焦虑情绪,而焦虑情绪会影响睡眠、进食等活动,降低患者机体免疫力,影响镇痛效果[15]。因此,对于知晓自身病情、存在焦虑情绪者,要对其做好心理疏导,使患者建立治疗信心,提高镇痛治疗效果。

综上所述,老年恶性肿瘤癌痛住院患者镇痛治疗效果受多种因素影响,其中知晓自身病情、淋巴结转移、癌症分期Ⅲ~Ⅳ期、入院时初始疼痛强度重度、爆发痛、镇痛不良反应及焦虑是患者镇痛效果不良的危险因素。但本研究所纳入的病例样本量不高,均来源于同一所医院,所得结论可能存在一定偏倚,后续可针对以上不足开展深入研究。

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(编辑: 郑真真)