·临床研究·

老年冠心病患者急诊经皮冠状动脉介入术后短期生活质量与应对能力

王滢[1],谭琴[1],于桂馥[2],熊娅君[1*]
(遂宁市中心医院:[1]心血管中心,[2]心身医学科,四川 遂宁 629000)

【摘 要】 目的 调查老年冠心病患者急诊经皮冠状动脉介入术(PCI)后短期生活质量与应对方式。**方法** 开展回顾性研究,将遂宁市中心医院2020年9月至2023年9月收治的136例行急诊PCI治疗的老年冠心病患者作为急诊组,将同期收治的140例行择期PCI治疗的老年冠心病患者作为择期组。采用健康调查简表(SF-36)以及医学应对方式问卷(MCMQ)分别调查患者术后1个月生活质量及应对方式。根据急诊组患者SF-36总得分,分为生活质量良好组64例(术后1个月SF-36总得分≥平均得分)与生活质量不佳组72例(术后1个月SF-36总得分<平均得分)。采用SPSS 19.0统计软件进行数据分析。根据数据类型,组间比较分别采用独立样本t检验或χ^2检验。采用Pearson线性相关分析法进行相关性分析。采用二元logistic回归模型分析影响急诊组患者术后1个月生活质量的相关因素。**结果** 急诊组患者PCI术后1个月SF-36中精力(VT)、情绪职能(RE)、精神健康(MH)维度以及量表总得分均显著低于择期组,MCMQ中回避及屈服维度得分均显著高于择期组,差异均有统计学意义($P<0.05$)。Pearson相关性分析显示,MCMQ中面对维度与SF-36中VT及RE维度呈正相关($r=0.341,0.279$;$P<0.001$),回避维度与SF-36中RE及MH维度呈负相关($r=-0.293,-0.311$;$P<0.001$),屈服维度与SF-36中VT及RE维度呈负相关($r=-0.366,-0.374$;$P<0.001$)。二元logistic回归分析显示,女性($OR=1.878$,95%CI 1.166~3.023)、合并糖尿病($OR=3.971$,95%CI 1.690~9.333)以及术后残余狭窄($OR=3.391$,95%CI 2.094~5.491)是影响老年冠心病急诊PCI术后1个月生活质量的危险因素,大专及以上学历是保护因素($OR=0.460$,95%CI 0.274~0.774)。**结论** 与择期手术的老年冠心病患者相比,急诊PCI患者术后1个月VT、RE及MH反映心理状态维度的生活质量更差,且VT、RE及MH维度得分与应对方式之间存在弱相关性。临床应加强对女性、合并糖尿病、术后残余狭窄等高危患者术后生活质量的关注。

【关键词】 老年人;冠心病;急诊;经皮冠状动脉介入术;生活质量;应对方式
【中图分类号】 R541.4 **【文献标志码】** A **【DOI】** 10.11915/j.issn.1671-5403.2025.05.073

Short-term quality of life and coping ability in elderly patients with coronary heart disease after emergency PCI

Wang Ying[1], Tan Qin[1], Yu Guifu[2], Xiong Yajun[1*]
([1]Cardiovascular Center, [2]Department of Psychosomatic Medicine, Suining Central Hospital, Suining 629000, Sichuan Province, China)

【Abstract】 Objective To investigate the short-term quality of life (QoL) and coping styles in elderly patients with coronary heart disease (CHD) after emergency percutaneous coronary intervention (PCI). **Methods** A total of 136 elderly CHD patients undergoing emergency PCI in our hospital from September 2020 to September 2023 were recruited and served as the emergency group, and another 140 elderly CHD patients receiving scheduled PCI during the same period were included in the scheduled group. At one month after surgery, the QoL and coping styles were investigated with 36-item short-form health survey (SF-36) and medical coping modes questionnaire (MCMQ). According to the total score of SF-36 scale in the emergency group at one month after surgery, they were divided into good QoL group (total score ≥ average score, 64 cases) and poor QoL group (total score < average score, 72 cases). SPSS 19.0 was used for statistical analysis. Depending on data types, independent sample t test or Chi-square test were performed for intergroup comparison. Pearson linear correlation analysis was applied to analyze the relationship between SF-36 score and MCMQ score in patients in the emergency group. Binary logistic regression model was adopted to identify the related factors affecting the postoperative QoL in emergency patients in one month after PCI. **Results** At one month after PCI, the scores of vitality (VT), role emotional (RE) and (MH) dimensions and total score of SF-36 scale were significantly lower, while the scores of avoidance and yielding of MCMQ scale were obviously higher in the emergency group than the elective group ($P<0.05$). Pearson correlation analysis showed that the facing dimension was positively correlated with the VT and RE scores of SF-36 scale ($r=0.341$, 0.279, all $P<0.001$), avoidance dimension was negatively correlated with RE and MH scores ($r=-0.293$, -0.311, all $P<0.001$), while yielding dimension was negatively correlated with VT and RE scores ($r=-0.366$, -0.374, all $P<0.001$). Binary logistic multivariate regression analysis suggested

收稿日期: 2024-03-23; **接受日期**: 2024-06-12
基金项目: 四川省科技厅重点研发计划(2019YFS0345)
通信作者:熊娅君, E-mail: xyj198706xyj@163.com

that female (*OR*=1.878, 95%*CI* 1.166-3.023), diabetes mellitus (*OR*=3.971, 95%*CI* 1.690-9.333) and postoperative residual stenosis (*OR*=3.391, 95%*CI* 2.094-5.491) were risk factors affecting the QoL, while education level of junior college or above was a protective factor (*OR*=0.460, 95%*CI* 0.274-0.774) for QoL at 1 month after PCI. **Conclusion** Compared with the elderly CHD patients undergoing scheduled PCI, those undergoing emergency PCI have worse QoL in terms of psychological status dimensions such as VT, RE and MH at one month postoperatively, and there is a weak correlation between the scores of these dimensions and coping styles. In clinical practice, attention should be paid to the QoL among the high-risk patients, such as women, having diabetes mellitus and postoperative residual stenosis.

【Key words】 aged; coronary heart disease; emergency; percutaneous coronary intervention; quality of life; coping style

This work was supported by Key Research and Development Project of Sichuan Provincial Science and Technology Department (2019YFS0345).

Corresponding author: *Xiong Yajun*, *E-mail*: *xyj198706xyj@163.com*

冠心病患者急性心肌梗死(acute myocardial infarction, AMI)需在短时间内有效开通梗死相关血管,其中急诊经皮冠状动脉介入术(percutaneous coronary intervention, PCI)可实现早期再灌注,改善患者预后[1,2]。在欧美发达国家,AMI 患者接受急诊 PCI 的比例较高,但在我国,受到医疗条件、医疗人才缺乏等因素的影响,依旧有不少患者行择期 PCI 手术。有研究称,与择期手术者相比,急诊 PCI 能有效减少 ST 段抬高型心肌梗死(ST-segment elevation myocardial infarction, STEMI)患者术后不良心血管事件发生率[3]。但急诊手术者病发突然,患者不能正确评估自身病情,往往缺乏对手术的准备,更易产生焦虑、恐惧、惊慌等情绪障碍,而以上急诊因素是否会对患者术后康复产生影响是一个值得探讨的问题。随着临床观念的转变,生活质量已成为评估整体治疗效果的重要指标,本研究通过对比老年冠心病急诊 PCI 手术及择期手术患者的术后生活质量及应对方式,分析急诊因素对老年冠心病患者术后康复的影响,以期为临床提供参考。

1 对象与方法

1.1 研究对象

开展回顾性研究,将遂宁市中心医院 2020 年 9 月至 2023 年 9 月收治的 136 例行急诊 PCI 治疗的老年冠心病患者作为急诊组,将同期收治的 140 例行择期 PCI 治疗的老年冠心病患者作为择期组。纳入标准:年龄≥65 岁;行冠状动脉造影检查确诊为冠状动脉粥样硬化性心脏病;符合 STEMI 相关诊断标准[4];符合 PCI 适应证,成功完成 PCI 治疗,均为冠状动脉支架植入术;初次行 PCI 治疗;知情且同意参与本研究。排除标准:非冠心病;合并恶性肿瘤、残疾、肝肾等严重影响生活质量的重大疾病;合并认知或精神障碍。本研究经川北医学院附属遂宁医院伦理委员会批准(伦理批号:20200784)。

1.2 方法

1.2.1 资料收集 收集一般人口学资料:包括患者性别、年龄、体质量指数(body mass index, BMI)、既往病史(糖尿病、高血压、高脂血症、脑血管疾病)、受教育程度、婚姻状况、医疗支付方式、家庭月收入、居住地等信息。病情相关资料:血管病变支数、术后残余狭窄(指在放射学中,至少相互垂直照体位残余狭窄>30%)、发病至手术时间、术后用药情况等。生活习惯:术后是否依旧保持吸烟、饮酒习惯。患者一般人口学资料及手术病情相关资料由其责任护士在患者出院前 24 h 内收集完成;患者出院后 1 个月,由课题小组成员通过电话随访的方式完成问卷调查。

1.2.2 问卷调查 调查问卷包括 SF-36 及 MCMQ,且随访日期在规定日期前后 5 d 内视为有效。(1)采用健康调查简表(36-item short-form health survey, SF-36)[5]评估患者生活质量。量表包含躯体功能(physical function, PF)、躯体角色(role physical, RP)、躯体疼痛(bodily pain, BP)、一般健康状况(general health, GH)、精力(vitality, VT)、社会功能(social function, SF)、情绪职能(role emotional, RE)及精神健康(mental health, MH)8 个维度,前 4 个维度反映生理情况,后 4 个维度反映心理状态。转换分数=(该维度实际得分-该维度最低得分)/(该维度最高得分-该维度最低得分)×100,得分越高,患者生活质量越好。根据急诊组患者 SF-36 总得分,将其分为生活质量良好组 64 例(术后 1 个月 SF-36 总得分≥平均得分)与生活质量不佳组 72 例(术后 1 个月 SF-36 总得分<平均得分)。(2)采用医学应对方式问卷(medical coping modes questionnaire, MCMQ)评估患者应对方式[6]。量表包括面对、回避及屈服 3 个维度,共 20 个条目,各条目得分 1~4 分,各维度项目均分得分越高表示个体更倾向于采用此应对方式。

1.3 统计学处理

采用 SPSS 19.0 统计软件进行数据分析。计量资料以均数±标准差($\bar{x}\pm s$)表示,组间比较采用独立样本 t 检验;计数资料以例数(百分率)表示,组间比较采用 χ^2 检验。采用 Pearson 线性相关分析法进行相关性分析。采用二元 logistic 回归模型分析影响

急诊组患者术后1个月生活质量的相关因素。$P<0.05$为差异有统计学意义。

2 结 果

2.1 急诊组与择期组患者基线资料比较

急诊组与择期组患者基线资料比较,差异均无统计学意义($P>0.05$;表1)。

表1 急诊组及择期组基线资料比较

Table 1 Comparison of baseline data between emergency group and scheduled group [n(%)]

Item	Emergency group (n=136)	Scheduled group (n=140)	χ^2	P value
Gender			1.130	0.289
Male	90(66.18)	84(60.00)		
Female	46(33.82)	56(40.00)		
Age			1.706	0.192
65-79 years	70(54.47)	83(59.29)		
>79 years	66(48.53)	57(40.71)		
Diabetes mellitus	34(25.00)	43(30.71)	1.120	0.290
Hypertension	95(69.85)	102(72.86)	0.305	0.581
Hyperlipidemia	30(22.06)	37(26.43)	0.717	0.397
History of cerebrovascular disease	23(16.91)	20(14.29)	0.362	0.548
Education level			3.878	0.144
Primary school or below	48(35.29)	44(31.43)		
Middle school or technical secondary school	58(42.65)	75(53.57)		
Junior college or above	30(22.06)	21(15.00)		
Marital status			2.264	0.132
Married	94(69.12)	108(77.14)		
Unmarried/divorced/widowed	42(30.88)	32(22.86)		
Medical payment method			1.578	0.454
Medical insurance	63(46.32)	75(53.57)		
New rural cooperative medical system	58(42.65)	50(35.71)		
Others	15(11.03)	15(10.72)		
Family monthly income			0.911	0.634
<3 000 yuan	16(11.77)	22(15.71)		
3 000-6 000 yuan	87(63.97)	86(61.43)		
>6 000 yuan	33(24.26)	32(22.86)		
Place of residence			0.733	0.392
Urban area	75(55.15)	70(50.00)		
Rural area	61(44.85)	70(50.00)		
Vascular lesion count			0.781	0.673
1	62(45.59)	70(50.00)		
2	50(36.76)	50(35.71)		
≥3	24(17.65)	20(14.29)		
Postoperative medication				
Aspirin	128(94.12)	132(94.29)	0.004	0.952
ADP receptor blocker	130(95.59)	132(94.29)	0.243	0.622
Receptor blocker	126(92.65)	131(93.57)	0.092	0.762
Statins	131(96.32)	133(95.00)	0.291	0.590
ACEI/ARB	107(78.68)	112(80.00)	0.074	0.786
Proton pump inhibitor	103(75.74)	108(77.14)	0.076	0.783

ADP: adenosine diphosphate; ACEI: angiotensin converting enzyme inhibitors; ARB: angiotensin receptor blocker.

2.2 急诊组与择期组患者术后1个月生活质量及应对方式比较

急诊组患者PCI术后1个月SF-36中VT、RE、MH维度以及量表总得分均显著低于择期组,MCMQ中回避及屈服维度得分均显著高于择期组患者,差异均有统计学意义($P<0.05$;表2)。

表2 急诊组与择期组患者术后1个月生活质量及应对方式比较

Table 2 Comparison of quality of life and coping styles between emergency group and scheduled group at one month after surgery (points, $\bar{x}\pm s$)

Scale	Emergency group (n=136)	Elective group (n=140)	t	P value
SF-36				
PF	54.15±10.37	55.76±9.97	1.345	0.190
RP	56.37±12.36	57.48±11.15	0.784	0.434
BP	60.34±15.43	60.87±13.64	0.303	0.763
GH	46.37±8.65	47.15±9.81	0.700	0.485
VT	41.11±7.69	47.05±8.75	5.984	<0.001
SF	58.48±10.39	58.47±11.06	0.008	0.994
RE	60.37±13.68	64.43±12.69	2.557	0.011
MH	43.45±12.41	48.31±13.11	3.161	0.002
Total score	420.64±53.74	439.52±46.27	3.131	0.019
MCMQ				
Facing	19.45±3.98	20.16±3.85	1.506	0.133
Avoidance	16.87±4.07	13.25±3.46	7.969	<0.001
Yielding	9.43±2.24	7.71±2.74	5.700	<0.001

SF-36: 36-item short-form health survey; PF: physical function; RP: role physical; BP: bodily pain; GH: general health; VT: vitality; SF: social function; RE: role emotional; MH: mental health; MCMQ: medical coping modes questionnaire.

2.3 急诊组患者术后生活质量与应对方式之间的相关性分析

Pearson相关性分析显示,MCMQ中面对维度与SF-36中VT及RE维度呈正相关,回避维度与SF-36中RE及MH维度呈负相关,屈服维度与SF-36中VT及RE维度呈负相关($P<0.05$;表3)。

表3 急诊组患者术后生活质量与应对方式之间的相关性分析

Table 3 Correlation between postoperative quality of life and coping styles of patients in emergency group

SF-36	Facing		Avoidance		Yielding	
	r	P value	r	P value	r	P value
PF	0.086	0.278	-0.141	0.203	-0.099	0.198
RP	0.151	0.141	-0.081	0.284	-0.119	0.201
BP	0.167	0.057	-0.111	0.184	-0.131	0.226
GH	0.169	0.061	-0.129	0.205	-0.153	0.146
VT	0.349	<0.001	-0.171	0.063	-0.379	<0.001
SF	0.166	0.055	-0.152	0.143	-0.198	0.071
RE	0.284	<0.001	-0.299	<0.001	-0.371	<0.001
MH	0.130	0.217	-0.325	<0.001	-0.168	0.061

SF-36: 36-item short-form health survey; PF: physical function; RP: role physical; BP: bodily pain; GH: general health; VT: vitality; SF: social function; RE: role emotional; MH: mental health.

2.4 影响急诊组患者 PCI 术后 1 个月生活质量的单因素分析

单因素分析发现,急诊组生活质量不佳患者中女性、年龄>79 岁、合并糖尿病、术后残余狭窄者占比显著高于生活质量良好者,大专及以上受教育程度者占比显著低于生活质量良好者,差异均有统计学意义(P<0.05;表 4)。

表 4 影响急诊组患者 PCI 术后 1 个月生活质量的单因素分析

Table 4 Univariate analysis of quality of life of patients in emergency group at one month after PCI (n=136)

Item	Good QoL group(n=64)	Poor QoL group(n=72)	χ^2/t	P value
Gender[n(%)]			9.859	0.002
Male	51(79.69)	39(54.17)		
Female	13(20.31)	33(45.83)		
Age[n(%)]			9.696	0.002
65-79 years	42(65.63)	28(38.89)		
>79 years	22(34.37)	44(61.11)		
BMI[n(%)]			0.040	0.980
<18.5 kg/m^2	15(23.44)	16(22.22)		
18.5-23.9 kg/m^2	18(28.12)	20(27.78)		
>23.9 kg/m^2	31(48.44)	36(50.00)		
Diabetes mellitus[n(%)]	10(15.63)	24(33.33)	5.667	0.017
Hypertension[n(%)]	46(71.88)	49(68.06)	0.235	0.628
Hyperlipemia[n(%)]	12(18.75)	18(25.00)	0.770	0.380
History of cerebrovascular disease[n(%)]	14(21.88)	9(12.50)	2.119	0.145
Postoperative smoking[n(%)]	22(34.38)	22(30.26)	0.226	0.635
Postoperative drinking[n(%)]	10(15.63)	14(19.44)	0.340	0.560
Education level[n(%)]			11.304	0.004
Primary school or below	14(21.88)	34(47.22)		
Middle school or technical secondary school	30(46.87)	28(38.89)		
Junior college or above	20(31.25)	10(13.89)		
Marital status[n(%)]			0.431	0.517
Married	46(71.88)	48(66.67)		
Unmarried/divorced/widowed	18(28.12)	24(33.33)		
Medical payment method[n(%)]			2.229	0.328
Medical insurance	33(51.56)	30(41.67)		
New rural cooperative medical system	23(35.94)	35(48.61)		
Others	8(12.50)	7(9.72)		
Family monthly income[n(%)]			0.743	0.690
<3 000 yuan	9(14.06)	7(9.72)		
3 000-6 000 yuan	39(60.94)	48(66.67)		
>6 000 yuan	16(25.00)	17(23.61)		
Place of residence[n(%)]			0.347	0.556
Urban area	37(57.81)	38(52.78)		
Rural area	27(42.19)	34(47.22)		
Vascular lesion count[n(%)]			1.600	0.449
1	32(50.00)	30(41.67)		
2	20(31.25)	30(41.67)		
≥3	12(18.75)	12(16.66)		
Postoperative residual stenosis[n(%)]	8(12.50)	22(30.56)	6.425	0.011
Time from onset to surgery[n(%)]			2.519	0.113
≤6 h	20(31.25)	14(19.44)		
>6 h	44(68.75)	58(80.56)		
Postoperative medication[n(%)]				
Aspirin	62(96.88)	66(91.67)	1.660	0.198
ADP receptor blocker	60(93.75)	70(97.22)	0.969	0.325
Receptor blocker	60(93.75)	66(91.67)	0.216	0.642
Statins	63(98.44)	68(94.44)	1.526	0.217
ACEI/ARB	54(84.38)	53(73.61)	2.340	0.126
Proton pump inhibitor	44(68.75)	59(81.94)	3.210	0.073
Stent count[n(%)]			2.480	0.115
1	41(64.06)	55(76.39)		
≥2	23(35.94)	17(23.61)		
Stent length(mm, $\bar{x}\pm s$)	27.45±3.46	26.86±4.06	0.906	0.367
Left ventricular ejection fraction(%, $\bar{x}\pm s$)	56.49±6.14	57.11±5.37	0.628	0.531

QoL: quality of life; PCI: percutaneous coronary intervention; BMI: body mass index; ADP: adenosine diphosphate; ACEI: angiotensin converting enzyme inhibitors; ARB: angiotensin receptor blocker.

2.5 影响急诊PCI患者术后1个月生活质量的多因素分析

将急诊组患者术后1个月生活质量水平作为因变量(良好=0,不佳=1),单因素分析中有意义的指标作为自变量,行二元logistic回归分析,发现女性、合并糖尿病以及术后残余狭窄是影响其生活质量的危险因素,大专及以上学历是其保护因素(表5)。

3 讨 论

本研究对老年冠心病患者PCI术后1个月生活质量及应对方式进行调查,结果显示,急诊PCI患者术后生活质量SF-36中VT、RE、MH维度以及总得分均显著低于择期手术者,提示急诊PCI患者术后1个月心理维度的生活质量更差。分析原因为急诊PCI患者病发突然,难以正确评估自身病情,对手术的准备不足,对手术相关知识了解程度不高,而急诊出院后,多缺乏系统的术后康复指导,难以适应生活习惯的改变,难以接受因手术带来的家庭及社会角色转变,进而产生消极情绪及负面心理[7-9]。

此外,与择期手术者相比,急诊组患者术后应对方式中回避及屈服维度得分更高,说明急诊组患者更倾向选择回避及屈服等消极应对方式。相关性分析提示,急诊组患者应对方式中面对维度与SF-36中VT及RE维度呈正相关,回避维度与SF-36中RE及MH维度呈负相关,屈服维度与SF-36中VT及RE维度呈负相关,但由于研究样本量有限,以上因子之间的相关性系数均不高,整体均呈弱相关,提示老年冠心病急诊PCI患者的应对方式与其术后心理维度生活质量具有一定关系,积极的应对方式可能在改善患者术后生活质量中具有一定价值。

此外,为更深入全面地了解影响老年冠心病患者急诊PCI术后短期生活质量的相关因素,本文将年龄、性别、基础性疾病、受教育程度等多个指标纳入研究,结果发现,女性、合并糖尿病以及术后残余狭窄是影响急诊组患者术后1个月生活质量的危险因素,而大专及以上学历是其保护因素。分析原因可能有以下几方面。(1)退休后,与老年男性相比,老年女性往往承担和参与更多的家庭活动,故女性冠心病患者在完成急诊PCI治疗回归家庭后,更易感觉到家庭角色转变的落差,加上女性情感细腻,更易产生不良情绪。故建议临床应更加关注女性冠心病患者术后康复的情绪调节[10]。(2)糖尿病是一种慢性消耗性疾病,有研究显示,糖尿病是冠心病的主要危险因素,也是预测经皮腔内冠状动脉形术术后不良预后的独立危险因素[11,12]。本研究显示合并糖尿病将增加急诊组患者PCI术后生活质量不佳风险,提示临床应加强对合并糖尿病患者的关注,教导患者严格控制并监测血糖,同时加强对其心理教育,减轻患者对糖尿病的精神负担。(3)在PCI手术中,有部分患者因血管条件差、手术耐受力差等因素,不能一次性开通所有闭塞性病变,这导致其术后依旧可能产生心绞痛症状,降低生活质量[13,14]。本研究中术后残余狭窄者生活质量更差,建议临床针对此类患者,可考虑在仔细评估患者一般情况及血管条件后,再次开通病变血管,以提高其生活质量。(4)高学历者往往自主学习能力更强,可通过多种途径了解疾病及手术相关知识,自身健康素养较高,可自主调节不良情绪[15]。

综上,与择期手术的老年冠心病患者相比,急诊PCI者术后1个月VT、RE、MH等心理维度的生活质量更差,且VT、RE、MH维度得分与应对方式之间存在相关性,建议临床从调节患者应对方式的

表5 影响急诊PCI患者术后1个月生活质量的二元logistic回归分析

Table 5 Binary logistic regression analysis of influencing factors of quality of life of emergency patients one month after PCI

Factor	β	*SE*	*Wald* χ^2	*OR*	95%*CI*	*P* value
Female	0.630	0.243	6.722	1.878	1.166-3.023	0.010
Age>79 years	0.846	0.431	2.996	2.109	0.906-4.907	0.084
Diabetes mellitus	1.379	0.436	10.004	3.971	1.690-9.333	0.002
Education level						
Primary school or below	-	-	-	1.000	-	-
Middle school or technical secondary school	-0.746	0.469	2.530	0.474	0.189-1.189	0.112
Junior college or above	-0.776	0.265	8.575	0.460	0.274-0.774	0.004
Postoperative residual stenosis	1.221	0.246	24.635	3.391	2.094-5.491	<0.001

PCI: percutaneous coronary intervention. -: no datum.

角度出发,提高急诊 PCI 患者术后生活质量。同时,应注意提高对行急诊 PCI 的女性、合并糖尿病、术后残余狭窄等高危患者术后生活质量的关注。但本研究随访时间较短,属于单中心研究且样本数量有限,未能分析急诊因素对老年冠心病患者 PCI 术后长期生活质量的影响。后续研究中,我们将延长随访时间,扩大样本量,开展深入调研。

【参考文献】

[1] 万艳云, 贾薇, 董力清, 等. 老年急性心肌梗死患者经皮冠状动脉介入术后急性肾损伤现状及影响因素[J]. 中华老年多器官疾病杂志, 2024, 23(4): 271-275. DOI: 10.11915/j.issn.1671-5403.2024.04.058.

[2] Claessen B, Peters E. Radial access for PCI in acute myocardial infarction related cardiogenic shock: underused, underappreciated?[J]. JACC Cardiovasc Interv, 2023, 16(12): 1529-1530. DOI: 10.1016/j.jcin.2023.04.044.

[3] 孙源慧, 黄静, 王曙光, 等. AMI 患者行急诊与择期 PCI 的术后心功能比较[J]. 中国现代医学杂志, 2018, 28(20): 89-92. DOI: 10.3969/j.issn.1005-8982.2018.20.017.

[4] 中华医学会心血管病学分会,中华心血管病杂志编辑委员会. 急性 ST 段抬高型心肌梗死诊断和治疗指南(2019)[J]. 中华心血管病杂志, 2019, 47(10): 766-783. DOI: 10.3760/cma.j.issn.0253-3758.2019.10.003.

[5] McNamara CT, Parry G, Netson R, *et al*. Validation of the short-form 36 for adolescents undergoing reduction mammaplasty[J]. Plast Reconstr Surg Glob Open, 2023, 11(6): e5075. DOI: 10.1097/GOX.0000000000005075.

[6] Zhang L, Jiang M, Wang L, *et al*. The mediating effect of perceived social support and medical coping modes between psychological resilience and meaning in life in COVID-19 patients[J]. Patient Prefer Adherence, 2023, 17: 571-582. DOI: 10.2147/PPA.S391014.

[7] Mccahill R, Keogh S, Hughes JA. Adult pain and anticipatory anxiety assessment in the emergency department: an integrative literature review[J]. J Clin Nurs, 2023, 32(15-16): 4492-4501. DOI: 10.1111/jocn.16520.

[8] Abar B, Holub A, Lee J, *et al*. Depression and anxiety among emergency department patients: utilization and barriers to care[J]. Acad Emerg Med, 2017, 24(10): 1286-1289. DOI: 10.1111/acem.13261.

[9] Soleimani M, Kashfi LS, Mirmohamadkhani M, *et al*. The effect of aromatherapy with peppermint essential oil on anxiety of cardiac patients in emergency department: a placebo-controlled study[J]. Complement Ther Clin Pract, 2022, 46: 101533. DOI: 10.1016/j.ctcp.2022.101533.

[10] Narvaez Linares NF, Poitras M, Burkauskas J, *et al*. Neuropsychological sequelae of coronary heart disease in women: a systematic review[J]. Neurosci Biobehav Rev, 2021, 127: 837-851. DOI: 10.1016/j.neubiorev.2021.05.026.

[11] Chen S, Yang F, Xu T, *et al*. Smoking and coronary artery disease risk in patients with diabetes: a Mendelian randomization study[J]. Front Immunol, 2023, 14: 891947. DOI: 10.3389/fimmu.2023.891947.

[12] Chen J, Yin D, Dou K. Intensified glycemic control by HbA1c for patients with coronary heart disease and type 2 diabetes: a review of findings and conclusions[J]. Cardiovasc Diabetol, 2023, 22(1): 146. DOI: 10.1186/s12933-023-01875-8.

[13] Lee CH, Chong SZ, Hsueh SK, *et al*. Residual right coronary artery stenosis after left main coronary artery intervention increased the 30-day cardiovascular death and 3-year right coronary artery revascularization rate[J]. J Interv Cardiol, 2020: 4587414. DOI: 10.1155/2020/4587414.

[14] Ganyukov V, Kochergin N, Shilov A, *et al*. Randomized clinical trial of surgical *vs*. percutaneous *vs*. hybrid revascularization in multivessel coronary artery disease: residual myocardial ischemia and clinical outcomes at one year — hybrid coronary revascularization *Versus* stenting or surgery(HREVS)[J]. J Interv Cardiol, 2020: 5458064. DOI: 10.1155/2020/5458064.

[15] Gomes L, Liébana-Presa C, Araújo B, *et al*. Heart disease, now what? Improving quality of life through education[J]. Int J Environ Res Public Health, 2021, 18(6): 3077. DOI: 10.3390/ijerph18063077.

(编辑: 和雨璇)