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# 乳腺癌患者改良根治术后生活质量调查及复发转移的影响因素分析\*

黄正春<sup>1</sup> 杨 枋<sup>1Δ</sup> 孙智强<sup>1</sup> 霍明生<sup>1</sup> 朱 斌<sup>1</sup> 俞 欣<sup>2</sup>

(1 安徽理工大学第一附属医院甲乳外科 安徽 淮南 232007; 2 中国科学技术大学第一附属医院普外科 安徽 合肥 230001)

**摘要 目的:**调查乳腺癌患者改良根治术后生活质量,并对其复发转移的影响因素进行分析。**方法:**选取2012年6月~2014年6月期间于我院行改良根治术的乳腺癌患者197例,于术后3个月、术后6个月、术后12个月采用乳腺癌患者生活质量测定量表(FACT-B)评价患者生活质量。采用我院自制的调查问卷统计患者基本治疗情况,分析乳腺癌改良根治术后复发转移的影响因素。**结果:**本研究中,共发放197份问卷调查,回收195份,回收率为98.98%(195/197)。其中195例患者中有73例发生复发转移(复发转移组),122例未发生复发转移(未复发转移组)。195例乳腺癌患者术后3个月、术后6个月、术后12个月社会/家庭状况、生理状况、功能状况、情感状况、附加关注条目、总体生活质量等项目评分呈递增趋势( $P < 0.05$ )。多因素 Logistic 回归分析显示,病理类型为浸润性非特殊性癌、肿瘤大小 $\geq 2$  cm、临床分期为III期、激素受体为ER及PR均阴性均是乳腺癌改良根治术后复发转移的独立危险因素( $P < 0.05$ ),而采用放化疗、联合化疗方案、内分泌治疗以及p53蛋白阳性表达是乳腺癌改良根治术后复发转移的独立保护因素( $P < 0.05$ )。**结论:**乳腺癌患者行改良根治术后生活质量呈动态变化,其术后复发转移影响因素为病理类型、临床分期、肿瘤大小、激素受体、化疗方案、p53蛋白、内分泌治疗及放化疗。

**关键词:**乳腺癌;改良根治术;生活质量;复发转移;影响因素

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## Investigation of Quality of Life of Breast Cancer Patients after Modified Radical Operation and Analysis of Influencing Factors of Recurrence and Metastasis\*

HUANG Zheng-chun<sup>1</sup>, YANG Fang<sup>1Δ</sup>, SUN Zhi-qiang<sup>1</sup>, HUO Ming-sheng<sup>1</sup>, ZHU Bin<sup>1</sup>, YU Xin<sup>2</sup>

(1 Department of Breast Surgery, The First Affiliated Hospital of Anhui University of Technology, Huainan, Anhui, 232007, China;

2 Department of General Surgery, The First Affiliated Hospital of China University of Science and Technology, Hefei, Anhui, 230001, China)

**ABSTRACT Objective:** To investigate the quality of life of breast cancer patients after modified radical operation and analyze the influencing factors of recurrence and metastasis. **Methods:** 197 patients with breast cancer who underwent modified radical mastectomy in our hospital from June 2012 to June 2014 were selected. The quality of life of patients with breast cancer was evaluated by Quality of life scale for breast cancer patients (FACT-B) at 3 months, 6 months and 12 months after operation. The basic treatment of breast cancer patients was analyzed by self-designed questionnaire, and the influencing factors of recurrence and metastasis after modified radical mastectomy were analyzed. **Results:** In this study, 197 questionnaires were sent out and 195 were recovered, the recovery rate was 98.98% (195/197). 73 of 195 patients had relapse and metastasis. 73 patients with relapse and metastasis were enrolled in the relapse and metastasis group, and 122 patients without relapse and metastasis were enrolled in the relapse and metastasis group. The scores of social / family status, physiological status, functional status, emotional status, additional items of concern, and overall quality of life of 195 cases of breast cancer showed an increasing trend ( $P < 0.05$ ). The independent risk factors of recurrence and metastasis after modified radical mastectomy were infiltrative nonspecific cancer, tumor size  $\geq 2$  cm, clinical stage III, hormone receptor ER and PR negative ( $P < 0.05$ ), while p53 protein positive expression, chemotherapy regimen, radiochemotherapy and endocrine therapy were independent protective factors of recurrence and metastasis after modified radical mastectomy ( $P < 0.05$ ). **Conclusion:** The quality of life of patients with breast cancer after modified radical operation changes dynamically, the influencing factors of postoperative recurrence and metastasis are pathological type, clinical stage, tumor size, hormone receptor, chemotherapy plan, p53 protein, endocrine therapy, radiotherapy and chemotherapy.

**Key words:** Breast cancer; Modified radical mastectomy; Quality of life; Recurrence and metastasis; Influencing factors

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作者简介:黄正春(1976-),男,硕士,主治医师,研究方向:甲状腺与乳腺肿瘤,E-mail: hzc\_197612@163.com

Δ 通讯作者:杨枋(1965-),男,本科,主任医师,研究方向:乳腺与甲状腺疾病,E-mail: 2407790490@qq.com

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## 前言

乳腺癌是发生在乳腺腺上皮组织的恶性肿瘤, 其中约有 99% 的乳腺癌患者为女性, 男性仅占 1%, 在女性中发病率最高<sup>[1]</sup>。伴随医学技术发展, 乳腺癌诊断及治疗方案不断完善, 乳腺癌的病死率有所缓解<sup>[2]</sup>。乳腺癌改良根治术是其主要治疗方法, 可提高患者无病生存期、总生存期<sup>[3]</sup>。但由于乳腺癌改良根治术需切除患者大部分乳房, 而乳房相当于女性的第二特征, 乳房被切除后, 患者身心受损, 严重影响其生活质量<sup>[4]</sup>。此外, 乳腺癌患者经手术治疗后, 仍有部分患者存在复发转移情况<sup>[5]</sup>。因此, 明确了解乳腺癌患者改良根治术后复发影响因素, 制定其相应措施, 有助于改善患者预后。鉴于此, 本研究通过调查乳腺癌患者改良根治术后生活质量, 并分析其复发转移的影响因素, 以期改善乳腺癌术后患者的预后提供参考。

## 1 资料与方法

### 1.1 一般资料

选取 2012 年 6 月~2014 年 6 月期间于我院行改良根治术的乳腺癌患者 197 例, 年龄 46~72 岁, 平均(51.38± 3.49)岁。此次研究已获取我院伦理学委员会批准进行。纳入标准:(1)入院前未行包块切除活检术, 术后病理结果证实为乳腺癌;(2)符合改良根治术者, 且均择期完成手术;(3)临床资料完整者;(4)术前无远处转移。排除标准:(1)合并其他恶性肿瘤者;(2)合并其他免疫缺陷、急慢性感染者;(3)合并心肝肾等重要脏器功能障碍者;(4)既往有精神病史及障碍史者;(5)中途失访者, 未能完成本次研究者。

### 1.2 方法

**1.2.1 治疗方法** 所有患者均给予改良根治术治疗, 术中完成腋窝淋巴结、乳腺组织清扫, 保留胸大小肌, I 组和第 III 组腋窝淋巴结第。术后均给予蒽环联合紫杉醇类药物, 疗程 4~6 个。对淋巴结转移数目 >4 个者给予放疗, 孕激素受体(Progesterone receptor, PR)和 / 或雌激素受体(Estrogen receptor, ER)阳性者接受内分泌治疗, 采用他莫昔芬、芳香化酶抑制剂连续进行治疗。

**1.2.2 生活质量调查** 患者出院后, 于术后 3 个月、术后 6 个

月、术后 12 个月采用乳腺癌患者生命质量测定量表 (FACT-B)<sup>[6]</sup> 评价患者生活质量。其中 FACT-B 包括 5 个领域 36 个条目, 分别为功能状况、社会 / 家庭状况、生理状况各 7 个条目, 附加关注条目(9 个条目), 情感状况(6 个条目)。采用 5 等级计分, 各领域的得分相加得到总分, 分数越高, 生活质量越好。所有患者均完成生活质量的调查。

**1.2.3 基本资料收集** 采用我院自制的调查问卷统计患者基本治疗情况, 包括年龄、绝经情况(未绝经、已绝经)、病理类型(导管癌早期浸润、浸润性非特殊性癌、浸润性特殊型癌)、肿瘤大小、临床分期(I 期、II 期、III 期)、激素受体[ER 及 PR 均阴性、ER 阳性或 PR 阳性、ER 及 PR 均阳性]、p53 蛋白(阴性、阳性)、化疗方案(蒽环类、蒽环联合紫杉类)、是否放化疗、是否内分泌治疗、是否复发转移。执行问卷调查的相关医护人员需进行统一培训, 培训合格后开始调查, 经检查无误后回收问卷。

### 1.3 统计学方法

采用 SPSS25.0 统计软件进行分析, 采用率(%)描述计数资料, 采用  $\chi^2$  检验; 计量资料采用( $\bar{x} \pm s$ )描述, 采用 t 检验, 多组比较采用方差分析; 乳腺癌患者改良根治术后复发转移的影响因素采用多因素 Logistic 回归分析, 检验水准为  $\alpha=0.05$ 。

## 2 结果

### 2.1 随访结果

本研究中, 共发放 197 份问卷调查, 回收 195 份, 回收率为 98.98%(195/197)。随访 5 年, 其中 195 例患者中有 73 例发生复发转移, 复发转移率为 37.44%。发生局部复发 21 例; 远处转移 52 例, 其中骨转移 12 例, 肺转移 9 例, 脾转移 11 例, 多处远处转移 5 例, 肝转移 8 例, 脑转移 7 例。将 73 例发生复发转移的患者纳为复发转移组, 122 例未发生复发转移的患者纳为未复发转移组。

### 2.2 乳腺癌改良根治术后 12 个月内生活质量调查

195 例乳腺癌患者术后 3 个月、术后 6 个月、术后 12 个月附加关注条目、社会 / 家庭状况、功能状况、生理状况、情感状况、总体生活质量等项目评分呈递增趋势( $P<0.05$ ), 详见表 1。

表 1 乳腺癌改良根治术后 12 个月内生活质量调查( $\bar{x} \pm s$ , n=195)

Table 1 Quality of life survey within 12 months after modified radical mastectomy( $\bar{x} \pm s$ , n=195)

Point of time	Social / family status	Physiological condition	Functional status	Emotional state	Additional items of interest	Overall quality of life
3 months after operation	11.26± 2.37	13.60± 2.17	11.02± 1.74	12.19± 1.47	13.18± 2.86	61.25± 3.75
6 months after operation	15.34± 3.21 <sup>a</sup>	17.23± 3.64 <sup>a</sup>	14.25± 1.34 <sup>a</sup>	16.19± 1.38 <sup>a</sup>	18.28± 2.56 <sup>a</sup>	81.29± 5.36 <sup>a</sup>
12 months after operation	20.29± 3.78 <sup>ab</sup>	21.10± 2.88 <sup>ab</sup>	18.14± 1.45 <sup>ab</sup>	20.52± 1.49 <sup>ab</sup>	23.24± 2.51 <sup>ab</sup>	103.29± 6.25 <sup>ab</sup>
F	23.485	19.536	17.354	18.395	25.378	27.369
P	0.000	0.000	0.000	0.000	0.000	0.000

Note: compared with 3 months after operation, <sup>a</sup> $P<0.05$ ; compared with 6 months after operation, <sup>b</sup> $P<0.05$ .

### 2.3 乳腺癌改良根治术后复发转移的单因素分析

复发转移组和未复发转移组在年龄、绝经情况中的比较差异无统计学意义( $P>0.05$ ); 两组在临床分期、病理类型、p53 蛋白、肿瘤大小、激素受体、化疗方案、放化疗及内分泌治疗中的

比较差异有统计学意义( $P<0.05$ ); 详见表 2。

### 2.4 乳腺癌改良根治术后复发转移的多因素 Logistic 回归分析

以乳腺癌改良根治术后是否复发转移作为因变量(是 =1, 否 =0), 将单因素分析中有统计学意义的因素作为自变量并进

行赋值(赋值说明见表 3),纳入多因素回归分析,结果显示:病理类型为浸润性非特殊性癌、肿瘤大小 $\geq 2$  cm、临床分期为 III 期、激素受体为 ER 及 PR 均阴性均是乳腺癌改良根治术后复发转移的独立危险因素( $P<0.05$ ),而 p53 蛋白阳性表达,化疗方案为蒽环联合紫杉类、放化疗及内分泌治疗是乳腺癌改良根

治术后复发转移的独立保护因素( $P<0.05$ );详见表 3。

### 3 讨论

乳腺癌已成为全球妇女发病率最高的恶性肿瘤,由于该病发病早期症状缺乏特异性,多数患者确诊已至中晚期,健康深

表 2 乳腺癌改良根治术后复发转移的单因素分析  
Table 2 single factor analysis of recurrence and metastasis after modified radical mastectomy

Project	n=195	Recurrence and metastasis group(n=73)	Non recurrence and metastasis group (n=122)	$\chi^2$	P
Age(year)					
<40	44	21(47.73)	23(52.27)	3.483	0.178
40~60	109	35(32.11)	74(67.89)		
>60	42	17(40.48)	25(59.52)		
Menopause				0.182	0.667
No	116	42(36.21)	74(63.79)		
Yes	79	31(39.24)	48(60.76)		
Pathological type				9.126	0.011
Early infiltration of ductal carcinoma	18	1(5.56)	17(94.44)		
Invasive nonspecific cancer	167	69(41.32)	98(58.68)		
Invasive special type cancer	10	3(30.00)	7(70.00)		
Tumor size				10.289	0.001
$\leq 2$ cm	82	20(24.39)	62(75.61)		
>2 cm	113	53(46.90)	60(53.10)		
Clinical stages				25.487	0.000
Phase I	58	12(20.69)	46(79.31)		
Phase II	93	31(33.33)	62(66.67)		
Phase III	44	30(68.18)	14(31.81)		
Hormone receptor				19.592	0.000
ER and PR are negative	52	32(61.54)	30(57.69)		
ER positive or PR positive	48	24(50.00)	24(50.00)		
ER and PR positive	95	17(17.89)	68(71.58)		
P53 protein				5.872	0.015
Negative	69	18(26.09)	51(73.91)		
Positive	126	55(43.65)	71(56.35)		
Chemotherapy regimen				6.892	0.008
Anthracyclines	127	56(44.09)	71(55.91)		
Anthracycline combined Taxus	68	17(25.00)	51(75.00)		
Radiotherapy and chemotherapy				5.673	0.023
No	146	62(42.47)	84(57.53)		
Yes	49	11(22.45)	38(77.55)		
Endocrine therapy				4.257	0.039
No	138	58(42.03)	80(57.97)		
Yes	57	15(26.32)	42(73.68)		

表 3 乳腺癌改良根治术后复发转移的多因素 Logistic 回归分析

Table 3 Multivariate logistic regression analysis of recurrence and metastasis after modified radical mastectomy

Factors	Assignment statement	$\beta$	SE	Wald $\chi^2$	P	OR	95%CI
Pathological type	Early invasive ductal carcinoma = 0, invasive nonspecific carcinoma = 1, invasive special carcinoma = 2	1.242	0.538	6.459	0.034	2.929	2.322~7.338
Tumor size	<2cm=0, $\geq$ 2cm=1	1.273	0.482	6.889	0.029	3.148	2.167~7.452
Clinical stages	Phase I = 0, phase II = 1, phase III = 2	1.971	0.285	9.274	0.015	4.418	2.172~8.751
Hormone receptor	ER and PR positive = 0, ER positive or PR positive = 1, ER and PR negative = 2	1.826	0.254	8.317	0.021	6.937	1.872~2.746
P53 protein	Positive = 0, negative = 1	0.232	0.647	4.838	0.041	0.726	0.537~1.019
Chemotherapy regimen	Anthracycline combined Taxus = 0, anthracycline = 1	0.427	0.328	3.856	0.027	0.804	0.696~1.982
Radiotherapy and chemotherapy	Yes = 0, no = 1	0.446	0.372	4.927	0.021	0.927	0.716~1.836
Endocrine therapy	Yes = 0, no = 1	1.038	0.383	4.979	0.035	0.799	0.539~1.531

受影响<sup>[7-9]</sup>。改良根治术是乳腺癌的主要治疗方法,可明显改善患者预后。但术后复发及远处转移仍难以避免<sup>[10-12]</sup>。乳腺癌作为一种全身性疾病,早期就发生微转移灶。早期时,体内微转移灶中的大部分肿瘤细胞处于休眠状态,微转移灶生长受抑制<sup>[13-15]</sup>。原发肿瘤对微转移灶生长的抑制受手术切除后的影响,从而引起肿瘤复发<sup>[16]</sup>。同时术后随着时间的推移,休眠的肿瘤细胞在休眠一段时间后苏醒,生长增殖即形成转移灶<sup>[17]</sup>。既往文献统计<sup>[18]</sup>,乳腺癌术后的复发转移率达 30%~40%,且不少患者多在 2 年内复发。

本次研究结果显示,术后不同时间点其生活质量评分呈升高趋势,可见乳腺癌患者行改良根治术后其生活质量呈动态变化。术后 3 个月时,由于患者刚行手术切除,家庭生活被打乱,不愿与他人谈论自身的病情,加之此时尚处于化疗期,化疗的毒作用引起的不适感,自觉病情较重,恐会恶化<sup>[19]</sup>。术后 6 个月时,患者手术创面已基本愈合良好,放化疗治疗基本完成,故较治疗 3 个月时生活质量有所改善,但对于自己能否如期康复仍存在一定担忧,且在性生活方面仍然缺乏信心<sup>[20]</sup>。术后 12 个月时,患者身体已活动自如,已完全摆脱放化疗、手术带来的不适感,开始独立接触社会的时间增多,逐渐恢复自信心<sup>[21]</sup>。在随访过程中,约有 73 例患者术后发生复发转移,复发转移率为 37.44%。涂锦等学者<sup>[22]</sup>的随访结果显示,213 例患者中 79 例发生复发转移,复发转移率为 37.09%。这与本次研究结果数据接近。由此看出,乳腺癌患者行改良根治术后效果虽较理想,但是复发、转移风险也不可避免。单因素分析结果显示,肿瘤大小、病理类型、p53、临床分期、激素受体蛋白、化疗方案、放化疗及内分泌治疗与术后复发转移关系密切,可见乳腺癌改良根治术后影响因素相对较多,对患者预后影响显著。进一步的多因素 Logistic 回归分析结果显示,病理类型为浸润性非特殊性癌、肿瘤大小  $\geq$  2 cm、临床分期为 III 期、激素受体为 ER 及 PR 均阴性均是乳腺癌改良根治术后复发转移的独立危险因素,分析原因,肿瘤生长需新生血管支持,新生的血管不仅可成为肿瘤细胞进入血液循环运输到转移部位的途径,还可为肿瘤提供营养,对于浸润性非特殊类型癌,直径越大、分期越晚,患者术后转移率、复发率越高。此外,肿瘤的发生为多基因参与和多阶段协同作用的结果,p53 蛋白阳性表达可抑制多种癌基因生长,

故其是肿瘤术后复发转移的保护隐私。采用联合化疗方案、放化疗及内分泌治疗有助于提高患者手术成功率,延长患者寿命,促进患者早期恢复,降低术后复发及转移率。

综上所述,乳腺癌患者行改良根治术后生活质量呈动态变化,其中病理类型、肿瘤大小、临床分期、激素受体、p53 蛋白、放化疗及内分泌治疗均是乳腺癌患者术后复发转移的影响因素,临床可采取相应干预措施,以降低复发转移风险,提高患者生存率。

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