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乳腺癌术后放疗联合复方苦参注射液的临床效果观察

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摘要 目的：分析乳腺癌术后放疗联合复方苦参注射液的临床治疗效果。**方法：**选取 2013 年 3 月至 2016 年 3 月我院收治的乳腺癌患者 83 例，本次治疗前均接受保乳及前哨淋巴结活检术以及 5 周期的辅助化疗。将患者随机分为对照组 42 例和观察组 41 例，对照组患者给予单纯术后放疗治疗，观察组给予患者术后放疗联合复方苦参注射液治疗。比较两组患者治疗前后的血清 CA125、CA153 及 CA724，及 $CD3^+$、$CD4^+$、$CD8^+$、$CD4^+/CD8^+$ 及 NK 细胞水平，以及不良反应的发生情况。**结果：**治疗后，两组的血清 CA125、CA153 及 CA724 水平均明显降低，且观察组显著低于对照组，差异具有统计学意义(P<0.05)。观察组的 $CD3^+$、$CD4^+$、$CD8^+$、$CD4^+/CD8^+$ 及 NK 细胞数较治疗前明显改善，观察组的 $CD3^+$、$CD4^+$、$CD4^+/CD8^+$ 及 NK 细胞数显著高于对照组，$CD8^+$ 显著低于对照组，差异具有统计学意义(P<0.05)。治疗期间，观察组患者的 II 度以上皮肤反应、骨髓抑制的发生率均显著低于对照组，差异具有统计学意义(P<0.05)。**结论：**乳腺癌术后放疗联合复方苦参注射液治疗可显著增强机体的细胞免疫功能，且安全性更高。

关键词：乳腺癌；放疗；复方苦参注射液；肿瘤标志物；免疫功能

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Clinical Effect of Postoperative Radiotherapy Combined with Compound Matrine Injection on the Patients with Breast Cancer

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ABSTRACT Objective: To investigate the clinical efficacy of postoperative radiotherapy combined with compound matrine injection on the patients with breast cancer. **Methods:** Eighty-three patients with breast cancer received breast-conserving and sentinel lymph node biopsy before the study who were admitted in our hospital were divided into the control group and observation group. Forty-two patients in control group were treated with postoperative radiotherapy, and forty-one patients in observation group were received postoperative radiotherapy combined with compound matrine injection. The CA125, CA153, CA724, levels of $CD3^+$, $CD4^+$, $CD8^+$, $CD4^+/CD8^+$, NK, and adverse reaction in the two groups were detected and compared. **Results:** After treatment, the CA125, CA153, and CA724 in both groups were obviously decreased (P<0.05), which were significantly lower in the observation group than those of the control group (P<0.05). $CD3^+$, $CD4^+$, $CD8^+$, $CD4^+/CD8^+$, and NK cell in the observation group showed remarkable improvement (P<0.05) compared with those before treatment. And $CD3^+$, $CD4^+$, $CD4^+/CD8^+$, and NK cell of the observation group were significantly higher than those of the control group, while $CD8^+$ was much lower (P<0.05). During the treatment period, the incidence of skin reaction over grade II, and myelosuppression in observation group were much lower than those of control group (P<0.05). **Conclusion:** Postoperative radiotherapy combined with compound matrine injection had good ability in enhancing the cellular immune function and reducing adverse reaction on the patients with breast cancer.

Key words: Breast cancer; Radiotherapy; Compound matrine injection; Tumor marker; Immune function

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前言

乳腺癌是临床上常见的女性生殖系统恶性肿瘤，近年来发病率和死亡率呈逐年攀升，已成为女性因病死亡的首要原因之一[1]。随着年龄的增长，乳腺癌的发病率也升高，但绝经后的增加幅度会有所降低[2]。虽然，近年来随着医疗技术的不断发展以及针对乳腺癌的治疗研究的不断深入，患者的生存率已有明显升高，但女性对于美的追求也随之增加[3]。因此，保乳术后联合

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放疗就成为治疗早期乳腺癌的首选方式[4]。近年来，中医及中药学的不断深入发展为乳腺癌患者的治疗也带来了更多机会[5]，保乳术后放疗辅助以中药治疗可显著提高患者的治疗效果及生活质量[6]。本研究旨在探究乳腺癌术后放疗联合复方苦参注射液治疗的临床效果，现报道如下。

1 资料与方法

1.1 病例资料

选取 2013 年 3 月至 2016 年 3 月陕西中医药大学附属医院收治的乳腺癌患者 83 例，所有患者均为早期乳腺癌，心、肝、肾功能及血常规显示正常，Karnofsky 评分＞70 分，均为首次接受治疗，均接受保乳及前哨淋巴结活检术，并在放疗前接受 5 周期的辅助化疗，排除合并有严重并发症以及放疗禁忌症的患者。将患者随机分为对照组和观察组，对照组：患者 42 例，年龄 41～67 岁，平均(54.2± 4.9)岁；依据国际乳腺癌 TNM 分期标准[7]：I 期 27 例，II 期 15 例；肿瘤部位：右侧 23 例，左侧 19 例。观察组：患者 41 例，年龄 40～66 岁，平均(55.1± 4.6)岁，TNM 分期：I 期 26 例，II 期 15 例；肿瘤部位：右侧 24 例，左侧 18 例。两组年龄、肿瘤分期及部位等一般资料比较差异均无统计学意义(P>0.05)，具有可比性。

1.2 治疗方法

两组患者均保乳及前哨淋巴结活检术，并在术后均接受 5 周期的辅助化疗。对照组：采用 6MV-X 线，具体参数如下：全肺的 V20＜15%，对侧乳腺的 V10＜10%，全乳腺照射剂量为 2 Gy/ 次，1 次 /d，5 次 / 周。随后，采用 9 MeV 电子线瘤床补量 10 Gy，2 Gy/ 次，5 次 / 周。观察组：在对照组的基础上给予患者复方苦参注射液（山西振东制药有限公司，国药准字 Z14021230)(20 mL 加入 250 mL 生理盐水) 静脉滴注，1 次 /d。所有患者均给予 6 个月的治疗。

1.3 观察指标

(1)肿瘤标志物的检测：分别于治疗前和治疗后采集患者空腹静脉血液，采用美国 Abbott i2000-SR 型全自动化学发光仪测定肿瘤标志物糖类抗原 CA125、CA153 及 CA724 的水平。(2)采用德国 LEICA BOND-MAX 全自动免疫组化染色机测定患者的 $CD3^+$、T 辅助细胞 $CD4^+$、T 抑制细胞 $CD8^+$ 以及 NK 细胞($CD16^+$、$CD56^+$)值。

1.4 统计学方法

采用 SPSS19.0 分析处理数据，计量资料以($\bar{x}\pm s$)表示，组间比较采用 t 检验，计数资料以(%)表示，行 χ^2 检验，若 P<0.05 表示差异具有统计学意义。

2 结果

2.1 两组治疗前后血清 CA125、CA153 及 CA724 水平的比较

治疗前，两组的血清 CA125、CA153 及 CA724 水平比较差异均无统计学意义 (P>0.05)；治疗后，两组的血清 CA125、CA153 及 CA724 的水平均较治疗前明显降低，且观察组显著低于对照组，差异具有统计学意义(P<0.05)。详见表 1。

表 1 两组治疗前后血清 CA125、CA153 及 CA724 水平的比较($\bar{x}\pm s$)

Table 1 Comparison of the levels of serum CA125, CA153 and CA724 between the two groups before and after treatment ($\bar{x}\pm s$)

Groups	n	CA125		CA153		CA724	
		Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment
Control group	42	42.61± 4.37	32.57± 3.16[△]	40.11± 4.25	33.95± 3.54[△]	3.51± 0.95	2.51± 0.41[△]
Observation group	41	43.05± 4.42	18.35± 2.48[△○]	40.26± 4.19	17.28± 2.17[△○]	3.49± 0.91	1.75± 0.28[△○]

Note: Compared with before treatment, △ P<0.05; Compared with control group, ○ P<0.05.

2.2 两组治疗前后细胞免疫功能比较

治疗前，两组的细胞免疫功能比较无统计学差异(P>0.05)；治疗后，观察组的 $CD3^+$、$CD4^+$、$CD8^+$、$CD4^+/CD8^+$ 及 NK 细胞均有明显改善，且观察组的 $CD3^+$、$CD4^+$、$CD4^+/CD8^+$ 及 NK 细胞显著高于对照组，$CD8^+$ 显著低于对照组，比较差异具有统计学意义(P<0.05)。详见表 2。

表 2 两组治疗前后细胞免疫功能比较($\bar{x}\pm s$)

Table 2 Comparison of the cell immune function between the two groups before and after treatment($\bar{x}\pm s$)

Groups	Detecting time	$CD3^+$	$CD4^+$	$CD8^+$	$CD4^+/CD8^+$	NK cell (%)
Control group	Before treatment	57.65± 7.36	23.86± 3.10	42.56± 4.37	0.59± 0.14	40.97± 5.38
(n=42)	After treatment	58.09± 7.27	24.03± 3.23	43.12± 4.29	0.60± 0.09	41.26± 5.55
Observation group	Before treatment	58.24± 7.55	24.96± 3.14	42.85± 4.30	0.61± 0.12	40.28± 5.26
(n=41)	After treatment	66.12± 7.10[△○]	37.89± 4.42[△○]	32.08± 3.11[△○]	1.20± 0.19[△○]	66.29± 7.95[△○]

Note: Compared with before treatment, △ P<0.05; Compared with control group, ○ P<0.05.

2.3 两组治疗期间不良反应发生情况的比较

治疗期间，所有患者均出现不同程度的皮肤反应，但观察组患者的 II 度以上皮肤反应、骨髓抑制发生率均显著低于对照组，差异具有统计学意义(P<0.05)。见表 3。

3 讨论

近年来，随着人们生活水平的提高，良好的治疗效果已不能完全满足女性患者对美的追求，因此保乳术治疗就成为早期乳腺癌患的首选治疗方式[8-10]。放射治疗作为保乳治疗中关键的部分，在术后进行放射治疗不仅可大幅度提高肿瘤的局部控制率，而且还可保持保乳术对乳房外形的保留效果，因此被广

大医务工作者和患者所认可接受[11]。然而,单纯的术后放疗也存在着不良反应发生率高的不足,影响患者的康复效果及生活质量[12]。

表 3 两组不良反应发生情况的比较(例)

Table 3 Comparison of the incidence of adverse reactions between the two groups (n)

Groups	n	Skin reaction					Myelosuppression				
		I	II	III	IV	Rate (%)	I	II	III	IV	Rate (%)
Control group	42	14	17	10	1	11(26.2)	18	9	5	0	32(71.4%)
Observation group	41	16	10	4	0	4(9.8)◊	14	5	0	0	19(46.3%)◊

Note: Compared with the control group, ◊ P<0.05.

复方苦参注射液是一种中药制剂,主要成分为白土苓和苦参中提取的氧化参碱、苦参碱以及槐定碱,在散结止痛、凉血解毒、清热利湿等方面有显著功效[13,14]。其有效成分苦参碱已被证实具有诱导实体瘤细胞凋亡、细胞分化,抑制细胞增殖,阻隔肿瘤细胞的 DNA 合成,从而达到抑制癌细胞扩散的作用[15]。随着乳腺癌的发生及发展, 机体会大量分泌糖蛋白抗原,CA125、CA153 及 CA724 等作为重要的肿瘤标志物常被用于乳腺癌患者的肿瘤的诊断及发展程度的评估[16]。在本研究中,治疗后,两组的肿瘤标志物糖类抗原 CA125、CA153 及 CA724 的水平均有明显降低,且观察组显著低于对照组,提示单纯术后放疗可一定程度抑制肿瘤标志物的分泌及合成,但观察组的抑制效果更为显著,进一步证明了复方苦参注射液的抗肿瘤作用[17]。此外,观察组的 $CD3^+$、$CD4^+$、$CD8^+$、$CD4^+/CD8^+$ 及 NK 细胞较治疗前明显改善, 且观察组的 $CD3^+$、$CD4^+$、$CD4^+/CD8^+$ 及 NK 细胞显著高于对照组,$CD8^+$ 显著低于对照组。乳腺癌患者的总体免疫功能主要表现为抑制,而低程度的免疫无能以及免疫抑制是患者病情发生及发展的主要原因之一[18]。本研究结果提示复方苦参注射液联合术后放疗可有效改善了患者的细胞免疫功能[19]。治疗期间,观察组患者的 II 度以上皮肤反应、骨髓抑制发生率显著低于对照组,可能是由于复方苦参注射液的有效成分苦参碱抑制了肿瘤细胞的分裂及繁殖, 诱导肿瘤细胞的凋亡,联合放射治疗加速了细胞的凋亡[20]。

总而言之,乳腺癌术后放疗联合复方苦参注射液治疗可显著增强机体的细胞免疫功能,且安全性更高。

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