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甲状腺全切除术与双叶切除术对甲状腺微小癌患者血清甲状腺激素水平、预后及生活质量的影响*

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摘要 目的:探讨甲状腺全切除术与双叶切除术对甲状腺微小癌患者血清甲状腺激素水平、预后及生活质量的影响。方法:回顾性分析 2016 年 2 月~2018 年 8 月期间我院收治的甲状腺微小癌患者 103 例的临床资料,根据手术方式的不同分为 A 组(n=50,双叶切除术)和 B 组(n=53,甲状腺全切除术),比较两组围术期指标、甲状腺激素水平、生活质量、并发症及复发情况。结果:B 组术中出血量少于 A 组,手术时间、住院时间、切口长度短于 A 组($P<0.05$)。术后 3 个月,两组血清三碘甲状腺原氨酸(T3)、甲状腺素(T4)、游离三碘甲状腺原氨酸(FT3)、游离甲状腺素(FT4)水平均较术前降低,且 B 组低于 A 组($P<0.05$)。术后 12 个月,两组生活质量简表(SF-36)量表各维度评分均较术前升高,且 B 组高于 A 组($P<0.05$)。B 组并发症发生率低于 A 组($P<0.05$);两组复发率比较差异无统计学意义($P>0.05$)。结论:甲状腺全切除术治疗甲状腺微小癌患者的预后与双叶切除术相当,可有效改善临床指标、生活质量和甲状腺功能,同时还可减少并发症发生率。

关键词: 甲状腺全切除术; 双叶切除术; 甲状腺微小癌; 甲状腺激素; 预后; 生活质量

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Effects of Total Thyroidectomy and Double Lobectomy on Serum Thyroid Hormone Level, Prognosis and Quality of Life in Patients with Thyroid Micro Carcinoma*

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ABSTRACT Objective: To investigate the effect of total thyroidectomy and double lobectomy on serum thyroid hormone level, prognosis and quality of life in patients with thyroid micro carcinoma. **Methods:** The clinical data of 103 patients with thyroid microcarcinoma in our hospital from February 2016 to August 2018 were analyzed retrospectively. According to the different operation methods, they were divided into group A (n=50, double lobectomy) and group B (n=53, total thyroidectomy). The perioperative indexes, thyroid hormone level, quality of life, complications and recurrence were compared between the two groups. **Results:** The intraoperative hemorrhage in group B was less than that in group A, and the operation time, hospitalization time and incision length were shorter than those in group A ($P<0.05$). 3 months after operation, the levels of triiodothyronine (T3), thyroxine (T4), free triiodothyronine (FT3) and free thyroxine (FT4) in the two groups were lower than those before operation, and group B is lower than group A ($P<0.05$). 12 months after operation, the scores all dimensions of the SF-36 in the two groups were higher than before operation, and the scores in group B were higher than those in group A ($P<0.05$). The incidence of complications in group B was lower than that in group A ($P<0.05$). There was no significant difference in recurrence rate between the two groups ($P>0.05$). **Conclusion:** The prognosis of total thyroidectomy in the treatment of thyroid microcarcinoma is similar to that of double lobectomy, it can effectively improve clinical indicators, quality of life and thyroid function.

Key words: Total thyroidectomy; Double lobectomy; Thyroid micro carcinoma; Thyroid hormone; Prognosis; Quality of life

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前言

甲状腺微小癌是指甲状腺的癌灶直径 ≤ 10 mm 的甲状腺

癌,亦被称为隐匿性甲状腺癌^[1]。该病临床早期无特异性症状,患者通常可带瘤生存数年而不被发现,多数患者是检查时甲状腺可触及微小结节而确诊^[2,3]。随着病情的进展,可对肝肾功能

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及呼吸系统造成损害,严重者无法治愈且需终身服药,严重影响患者生活质量^[4]。因此,临床治疗通常建议患者尽早进行手术切除治疗,以最大程度的改善患者预后。传统的双叶切除术是治疗甲状腺微小癌的常用术式,可获得较好的疗效,但该术式中需行 6~8 cm 长切口,留有明显瘢痕,加重患者身心负担,同时术后并发症发生率高,尚存在一定的不足^[5,6]。甲状腺全切除术是近年来新兴的术式,可保留对侧全部或部分甲状腺组织,维持所需的生理功能^[7]。本研究通过对比甲状腺全切除术与双叶切除术对甲状腺微小癌患者的影响,以期对甲状腺微小癌患者术式的选择提供依据,现整理如下。

1 资料与方法

1.1 一般资料

回顾性分析 2016 年 2 月~2018 年 8 月期间我院收治的甲状腺微小癌患者 103 例的临床资料,患者纳入标准:(1)均经 CT 检查或术中快速冰冻切片病理检查确诊为甲状腺微小癌;(2)均具备手术指征者;(3)临床资料和术后随访资料齐全者。排除标准:(1)合并精神疾患、认知功能障碍者;(2)合并心脑血管疾病者;(3)合并其他恶性肿瘤者;(4)合并急慢性感染者;(5)合并免疫缺陷类疾病者;(6)合并凝血功能障碍者;(7)妊娠或哺乳期妇女者。此次研究已获取我院伦理学委员会批准进行。上述患者根据手术方式的不同分为 A 组(n=50,双叶切除术)和 B 组(n=53,甲状腺全切除术),其中 A 组男 28 例,女 22 例,年龄 37~56 岁,平均(45.62±3.91)岁;肿瘤直径 3~9 mm,平均(5.19±0.26)mm;肿瘤位置:左侧 27 例,右侧 23 例;疾病类型:乳头状癌 12 例,滤泡癌 18 例,髓样 8 例,低分化 12 例。B 组男 30 例,女 23 例,年龄 38~59 岁,平均(46.59±4.68)岁;肿瘤直径 2~10 cm,平均(5.06±0.38)cm;肿瘤位置:左侧 28 例,右侧 25 例;疾病类型:乳头状癌 11 例,滤泡癌 17 例,髓样 12 例,低分化 13 例。两组患者一般资料对比未见统计学差异($P>0.05$)。

1.2 方法

1.2.1 A 组 给予双叶切除术,具体操作如下:全麻,仰卧位,于胸骨上部至括约肌处做 6~8 cm 弧形切口,深度为到皮瓣上缘。将皮瓣上下牵开,采用止血钳提起颈白线两侧组织,纵向切开至甲状腺固有被膜处,随后进行被膜精细解剖,对较大甲状腺组织一侧全切,较小的甲状腺组织一侧保留 6~8 g 腺体,再

对甲状腺上下级静脉、动脉进行结扎处理,双极电凝法止血,并间断性予以缝合,两侧甲状腺组织均采用胶片引流,最终逐层缝合伤口。

1.2.2 B 组 给予甲状腺全切除术,具体操作如下:全麻,仰卧位,于胸骨上部至括约肌处做 2~3 cm 的弧形切口,深度为到皮瓣上缘。将皮瓣上下牵开,采用止血钳提起颈白线两侧组织,纵向切开至甲状腺固有被膜处,随后进行被膜精细解剖,将患者的双侧甲状腺组织全部切除,保留腺体 3~4 g,切除完毕后缝合包扎术区表面的血管,双极电凝法止血,并间断性予以缝合,两侧甲状腺组织均采用胶片引流,最终逐层缝合伤口。

1.2.3 术后处理 给予常规抗炎、抗感染药物进行治疗。采用门诊复查的方式随访 12 个月。

1.3 观察指标

(1)记录并比较两组患者围术期各项指标情况,包括:术中出血量、手术时间、住院时间、切口长度。(2)于术前、术后 12 个月采用生活质量简表(SF-36)[®]评价两组患者生活质量情况,SF-36 量表包括生理功能、精神状况、生理职能、情感职能、躯体疼痛、社会功能、活力指数及总体健康 8 个项目,每个项目各为 100 分,分数越高,生活质量越高。(3)于术前、术后 3 个月采集患者肘静脉血 5 mL,置于无菌试管中静置 30 min,经 4900 r/min 离心 12 min,离心半径 8 cm,分离上清液保存于冰箱中待测。参考试剂盒(上海长征康仁医学科学有限公司)说明书,采用酶联免疫吸附法检测血清三碘甲状腺原氨酸(Triiodothyronine, T₃)、甲状腺素(Thyroxine, T₄)、游离三碘甲状腺原氨酸(Free triiodothyronine, FT₃)、游离甲状腺素(Free thyroxine, FT₄)水平。(4)记录两组患者随访期间并发症发生情况及复发情况。复发标准:经 CT 检查或超声检查发现重新出现甲状腺微小癌。

1.4 统计学方法

使用 SPSS25.0 软件进行统计学分析,计量资料以($\bar{x} \pm s$)表示,实施 t 检验,计数资料以比或率表示,实施卡方检验,检验水准为 $\alpha=0.05$ 。

2 结果

2.1 两组围术期指标比较

B 组术中出血量少于 A 组,手术时间、住院时间、切口长度短于 A 组($P<0.05$);详见表 1。

表 1 两组围术期指标比较($\bar{x} \pm s$)

Table 1 Comparison of perioperative indexes between the two groups($\bar{x} \pm s$)

Groups	Intraoperative hemorrhage (mL)	Operation time(min)	Hospitalization time(d)	Incision length(cm)
Group A(n=50)	62.13±5.54	83.25±4.61	7.97±0.56	6.94±1.47
Group B(n=53)	28.81±4.46	62.17±5.41	4.33±0.52	2.56±0.72
t	33.713	21.224	34.205	19.372
P	0.000	0.000	0.000	0.000

2.2 两组甲状腺激素比较

术前,两组血清 T₃、T₄、FT₃、FT₄ 水平比较差异无统计学意义($P>0.05$);术后 3 个月,两组血清 T₃、T₄、FT₃、FT₄ 水平均较术前降低,且 B 组低于 A 组($P<0.05$);详见表 2。

2.3 两组患者生活质量比较

术前,两组 SF-36 量表各维度评分比较差异无统计学意义($P>0.05$);术后 3 个月,两组 SF-36 量表各维度评分均较术前升高,且 B 组高于 A 组($P<0.05$);详见表 3。

表 2 两组甲状腺激素比较($\bar{x} \pm s$)
Table 2 Comparison of thyroid hormones between the two groups($\bar{x} \pm s$)

Groups	T3(ng/mL)		T4(μg/dL)		FT3(ng/mL)		FT4(μg/dL)	
	Before operation	3 months after operation	Before operation	3 months after operation	Before operation	3 months after operation	Before operation	3 months after operation
Group A (n=50)	4.76± 0.79	3.11± 0.26*	16.69± 1.31	12.54± 1.29*	11.96± 1.15	8.04± 0.89*	4.36± 0.43	3.18± 0.92*
Group B (n=53)	4.58± 0.58	2.19± 0.37*	17.04± 1.63	8.99± 1.12*	12.21± 1.32	6.56± 0.77*	4.29± 0.35	2.32± 0.65*
t	1.323	14.521	1.197	14.937	1.022	9.040	0.908	5.504
P	0.189	0.000	0.234	0.000	0.309	0.000	0.366	0.000

Note: compared with before operation, * $P < 0.05$.

表 3 两组患者生活质量比较($\bar{x} \pm s$, 分)
Table 3 Comparison of quality of life between the two groups($\bar{x} \pm s$, scores)

Groups	Time	Physiological function	Mental state	Physiological function	Emotional function	Physical pain	Social function	Vitality index	Overall health
Group A (n=50)	Before operation	56.83± 6.59	53.91± 5.94	54.63± 7.82	59.15± 8.37	54.47± 8.76	68.34± 9.25	61.56± 7.92	52.34± 8.07
	12 months after operation	65.73± 7.16*	69.38± 7.26*	67.96± 7.88*	72.42± 9.74*	69.21± 10.83*	79.61± 10.44*	73.42± 8.14*	64.52± 8.59*
Group B (n=53)	Before operation	57.07± 7.08	54.29± 6.34	55.14± 8.06	60.73± 7.82	55.09± 9.10	67.83± 8.56	61.15± 8.26	51.75± 9.63
	12 months after operation	79.02± 10.09*#	82.35± 7.76*#	82.93± 11.87*#	83.28± 8.73*#	78.97± 9.07*#	87.64± 7.32*#	82.46± 7.41*#	77.46± 8.34*#

Note: compared with before operation, * $P < 0.05$; compared with group A, # $P < 0.05$.

2.4 两组并发症及复发情况比较

B 组并发症发生率低于 A 组($P < 0.05$); 详见表 4。随访期

间 A 组复发 2 例, 复发率为 4.00%, B 组无复发患者, 两组复发率比较无差异($\chi^2 = 3.053$, $P = 0.081$)。

表 4 两组并发症及复发情况比较例(%)
Table 4 Comparison of complications and recurrence between the two groups n(%)

Groups	Injury of recurrent laryngeal nerve	Numbness of hands and feet	Hypothyroidism	Incisional infection	Incidence of complications
Group A(n=50)	3(6.00)	4(8.00)	3(6.00)	4(8.00)	14(28.00)
Group B(n=53)	1(1.89)	2(3.77)	1(1.89)	2(3.77)	6(11.32)
χ^2					4.000
P					0.046

3 讨论

甲状腺是人体重要的内分泌腺体, 在生长发育、维持正常代谢、各器官生活功能等方面起重要作用^[8,9]。甲状腺微小癌属于甲状腺癌的一种, 约占其中的 60%~80%。甲状腺微小癌发生后, 可长时间处于隐匿状态, 因其无任何临床症状表现, 且易与其他甲状腺疾病同时发生, 因此, 诊断的时候极易出现误诊漏诊现象^[10,11]。近年来, 随着影像学技术的发展, 甲状腺微小癌的检出率日益提高。虽然甲状腺微小癌的癌灶肿瘤体积小, 但其

仍属于发展成熟的癌症病灶, 若未能及时予以治疗, 部分患者可出现扩散转移或区域性淋巴结转移, 严重影响患者生命健康^[12,13]。目前, 临床针对甲状腺微小癌的治疗多以手术治疗为主, 多数患者经手术治疗后预后较好^[14]。传统的双叶切除术是治疗甲状腺微小癌的常用术式, 手术技术及临床经验均较为丰富, 该术式的有效性已得到临床的广泛认可^[15]。但该手术仍存在创伤较大、术中对颈部肌肉及神经损伤较重、术后并发症发生率较高等不足^[16,17]。近年来, 甲状腺全切除术获得了较大进展, 但该术式亦存在行手术时不易辨认、处理喉返神经, 易对其

造成损伤等缺陷^[18,19],故临床对于两种术式用于治疗甲状腺微小癌的疗效尚存在一定争议,本研究就此展开探讨。

本次研究结果显示,B组术中出血量较少,手术时间、住院时间、切口长度较短,并发症发生率较低,且SF-36量表各维度评分改善情况优于A组,提示与双叶切除术相比,甲状腺全切除术治疗甲状腺微小癌患者,可有效改善临床指标,减少并发症发生率,提高其生活质量。甲状腺全切除术最大的特点在于可将传统双叶切除术中的6~8 cm的切口缩小至2~3 cm,减少对颈部皮瓣、肌肉、血管、神经损伤,降低术中出血量,保证颈部正常血供,最大程度保留颈部运动等正常生理功能^[20,22];同时小切口不仅利于患者术后恢复,减少并发症发生率,其术后瘢痕小、美观度高,也更易被患者所接受,生活质量得到有效改善^[23-25]。既往研究结果显示^[26],甲状腺手术过程中会不可避免的造成甲状腺组织的减少,致使患者术后存在一定的甲状腺功能低下状态。T3、T4是反映甲状腺合成功能的常用指标,FT3、FT4游离的为活性部分,可将甲状腺功能状态直接反映出^[27,28],本研究中两组术后的甲状腺激素水平下降,但是B组术后的甲状腺功能优于A组,这主要是因为甲状腺全切除术可有效保护甲状腺,避免其血供的破坏、腺体的损伤以及腺体的误切,同时甲状腺全切除术可最大限度对原发病灶进行清除,避免肿瘤残余,术后可以为患者制造更好的治疗残余甲状腺病灶及转移病灶的条件,减少肿瘤对甲状腺功能的影响^[29,30]。另外两组复发率比较差异无统计学意义,说明两种术式治疗甲状腺微小癌患者的预后相当。

综上所述,甲状腺全切除术治疗甲状腺微小癌患者的预后与双叶切除术无明显差异,可有效改善患者的围术期指标和甲状腺功能,提升患者的生活质量。

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