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超声引导下真空辅助旋切手术治疗乳腺良性叶状肿瘤的疗效 及术后局部复发的影响因素分析*

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摘要 目的:探讨超声引导下真空辅助旋切手术(VAE)治疗乳腺良性叶状肿瘤的疗效及术后局部复发的影响因素。方法:选取我院于2016年1月~2019年7月期间收治的乳腺良性叶状肿瘤患者100例,根据手术方式的不同分为A组(n=60,开放手术),B组(n=40,超声引导下VAE)。对比两组术中出血量、手术时间、伤口长度、住院时间、切口愈合时间、并发症发生率以及术后局部复发率。采用单因素及多因素Logistic回归分析术后局部复发的影响因素。结果:B组术中出血量少于A组,手术时间、伤口长度、住院时间、切口愈合时间均短于A组($P<0.05$)。B组并发症发生率低于A组($P<0.05$)。两组术后局部复发率对比无差异($P>0.05$)。单因素分析结果显示,术后局部复发与肿瘤直径、同侧乳房纤维腺瘤史、核分裂有关($P<0.05$)。多因素Logistic回归分析结果显示,肿瘤直径 ≥ 25 mm是乳腺良性叶状肿瘤患者术后局部复发的危险因素($P<0.05$)。结论:与开放手术治疗相比,超声引导下VAE治疗乳腺良性叶状肿瘤可有效改善患者围术期指标,减少并发症发生率,同时乳腺良性叶状肿瘤患者术后局部复发与肿瘤直径密切相关。

关键词: 超声引导;真空辅助旋切手术;乳腺良性叶状肿瘤;疗效;复发

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Analysis of the Effect of Ultrasound-guided Vacuum Assisted Circumcision in the Treatment of Benign Breast Phyllodes Tumor and the Influencing Factors of Postoperative Local Recurrence*

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ABSTRACT Objective: To investigate the efficacy of ultrasound-guided vacuum assisted circumcision (VAE) in the treatment of benign breast phyllodes tumor and analyze the influencing factors of postoperative local recurrence. **Methods:** 100 patients with benign breast phyllodes tumor admitted to our hospital from January 2016 to July 2019 were selected. The patients were divided into group A (n=60, open surgery) and group B (n=40, ultrasound-guided VAE) according to the different surgical methods. The intraoperative blood loss, operation time, wound length, hospitalization time, wound healing time, incidence rate of complications and postoperative local recurrence rate were compared between the two groups. Univariate and multivariate Logistic regression were used to analyze the influencing factors of postoperative local recurrence. **Results:** The intraoperative blood loss in group B was less than that in group A, and the operation time, wound length, hospitalization time and wound healing time in group B were shorter than those in group A ($P<0.05$). The incidence rate of complications in group B was less than that in group A ($P<0.05$). There was no significant difference in recurrence rate between the two groups ($P>0.05$). Univariate analysis showed that postoperative local recurrence were related to tumor diameter, ipsilateral breast fibroadenoma history and mitosis ($P<0.05$). Multivariate Logistic regression analysis showed that tumor diameter ≥ 25 mm was a risk factor for local recurrence in benign breast phyllodes tumor patients ($P<0.05$). **Conclusion:** Compared with open surgery, ultrasound-guided VAE can effectively improve the perioperative index and reduce the incidence of complications. At the same time, the local recurrence of patients with benign breast tumor is closely related to the diameter of the tumor.

Key words: Ultrasound guided; Vacuum assisted circumcision; Benign breast phyllodes tumor; Curative effect; Recurrence

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前言

乳腺叶状肿瘤是一种临床上不多见的乳腺疾病,多发于30~50岁的中年妇女群体,占有所有乳腺肿瘤的0.3%~0.9%^[1]。2003年世界卫生组织根据细胞异型性、有丝分裂指数、间质增生、多形性等提出了乳腺叶状肿瘤交界性、恶性、良性的具体组织学分类标准,其中乳腺良性叶状肿瘤可通过科学的方法治疗,达到根治疾病的目的^[2,3]。以往常用切开取瘤的方式治疗乳腺良性叶状肿瘤,该治疗方案预后良好,但缺点也较为显著,如无法准确控制切除范围、术后恢复时间长、术中出血量高及并发症多等^[4,6]。超声引导下真空辅助旋切手术(Vacuum assisted circumscision, VAE)具有微创、操作简单的优点,但也存在切缘不充分导致局部复发的问題^[7]。故而有关开放手术、超声引导下VAE的具体疗效优劣仍存在一定的争议。鉴于此,本研究通过探讨超声引导下VAE治疗乳腺良性叶状肿瘤的疗效及术后局部复发的影响因素,以期临床该病治疗术式的选择提供参考。

1 资料与方法

1.1 一般资料

选取我院于2016年1月~2019年7月期间收治的乳腺良性叶状肿瘤患者100例,纳入标准:①临床及影像学检查结果显示为直径1~3cm的良性病灶;②符合手术指征,择期完成手术;③精神、意识正常,知情本次研究且签署同意书者。排除标准:①随访失访的患者;②合并精神疾病或神经系统疾病;③合并严重妇科疾病者。本研究获得我院伦理会批准。以上患者根据手术方式的不同分为A组(n=60,开放手术),B组(n=40,超声引导下VAE),其中A组年龄35~60岁,平均(49.86±4.27)岁;肿瘤直径为11~29mm,平均(22.64±3.71)mm。B组年龄36~58岁,平均(49.73±3.98)岁;肿瘤直径为12~29mm,平均(22.43±3.29)mm。两组一般资料对比无明显差异(P>0.05)。

1.2 治疗方法

A组采用开放手术治疗,具体如下:体位取仰卧位,术前采用B超定位病灶部位并做标记,常规进行消毒铺巾。注射5mL利多卡因至相应的位置进行局部麻醉。于标记处作一弧形切口,切开皮肤,逐层分离到肿瘤部位,切除病灶及部分正常腺体。确定肿瘤无残留后逐层止血,缝合切口。

B组采用超声引导下VAE治疗,具体如下:体位取仰卧位,术前操作同A组一致。使用手术刀沿乳晕边缘切开皮肤约3~6mm,胸壁与微创旋切针成30°角进针至肿块底部,在超声引导下开始旋切,将肿瘤完整切除后,通过负压吸引吸出旋切组织,并吸净积血,止血后加压包扎伤口。

1.3 观察指标

记录两组手术相关指标:术中出血量、手术时间、伤口长度、住院时间、切口愈合时间。以门诊复查的形式对患者进行为期12个月的随访,记录两组并发症、术后局部复发率。根据患者乳腺超声复查结果,判断患者术后是否发生复发。

1.4 资料收集

收集患者的病例资料,包括手术方式、年龄、肿瘤直径、同侧乳房纤维腺瘤史(是/否)、绝经状态(绝经/未绝经)、核分裂(有/无)。

1.5 统计学分析

采用SPSS 25.00软件进行数据分析。计量资料以($\bar{x} \pm s$)表示,比较采用t检验。计数资料采用比或率表示,比较采用卡方检验。采用单因素及多因素Logistic回归分析术后局部复发的影响因素。检验水准 $\alpha=0.05$ 。

2 结果

2.1 两组手术相关指标对比

B组术中出血量少于A组,手术时间、伤口长度、住院时间、切口愈合时间均短于A组(P<0.05),详见表1。

表1 两组手术相关指标对比($\bar{x} \pm s$)

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

Groups	Intraoperative blood loss(mL)	Operation time(min)	Wound length(mm)	Hospitalization time (d)	Wound healing time (d)
Group A(n=60)	23.12± 3.19	26.92± 3.21	12.03± 2.16	6.73± 1.19	7.08± 1.96
Group B(n=40)	14.96± 3.56	18.38± 2.31	3.98± 1.03	4.29± 1.23	3.51± 0.85
t	11.961	14.498	21.940	9.911	10.846
P	0.000	0.000	0.000	0.000	0.000

2.2 两组并发症及术后局部复发情况对比

A组术后并发症发生率为16.67%(10/60),分别是3例切口感染、7例并发血肿;B组术后并发症发生率为2.50%(1/40),仅有1例切口感染;B组的并发症发生率少于A组($\chi^2=4.920, P=0.027$)。A组术后局部复发例数13例,术后局部复发率为21.67%(13/60);B组术后局部复发例数10例,术后局部复发率为25.00%(10/40);两组术后局部复发率对比差异无统计学意义($\chi^2=0.151, P=0.698$)。

2.3 术后局部复发影响因素的单因素分析

单因素分析结果显示,术后局部复发与肿瘤直径、同侧乳

房纤维腺瘤史、核分裂有关(P<0.05),而与手术方式、年龄、绝经状态无关(P>0.05),详见表2。

2.4 术后局部复发影响因素的多因素 Logistic 回归分析

以乳腺良性叶状肿瘤患者是否术后局部复发作为因变量(赋值:未复发=0、复发=1),将单因素分析结果中有统计学意义的因素:肿瘤直径(赋值:肿瘤直径<25mm=0、肿瘤直径≥25mm=1)、同侧乳房纤维腺瘤史(赋值:无=0、有=1)、核分裂(赋值:无=0、有=1)作为自变量纳入多因素Logistic回归分析,结果显示,肿瘤直径≥25mm是乳腺良性叶状肿瘤患者术后局部复发的危险因素(P<0.05),详见表3。

表 2 术后局部复发影响因素的单因素分析

Table 2 Univariate analysis of influencing factors of postoperative local recurrence

Factors	Recurrence(n=23)	No recurrence(n=77)	χ^2	P
Surgical methods				
Open surgery	14(60.87)	46(59.74)	0.009	0.923
Ultrasound-guided VAE	9(39.13)	31(40.26)		
Age(years)				
<40	8(34.78)	30(38.96)	0.131	0.717
≥ 40	15(65.22)	47(61.04)		
Tumor diameter(mm)				
<25	4(17.39)	41(53.25)	9.199	0.002
≥ 25	19(82.61)	36(46.75)		
Ipsilateral breast fibroadenoma history				
Yes	21(91.30)	22(28.57)	28.436	0.000
No	2(8.70)	55(71.43)		
Menopause status				
Menopause	3(13.04)	10(12.99)	0.432	0.511
Premenopausal	20(86.96)	67(87.01)		
Mitosis				
Yes	17(73.91)	26(33.77)	11.646	0.001
No	6(26.09)	51(66.23)		

表 3 术后局部复发影响因素的多因素 Logistic 回归分析

Table 3 Multivariate logistic regression analysis of influencing factors of postoperative local recurrence

Variable	β	SE	Wald χ^2	P	OR	OR 95%CI
Tumor diameter≥ 25mm	-1.592	0.325	4.371	0.032	0.129	0.021~0.835
Ipsilateral breast fibroadenoma history	-1.673	0.298	2.963	0.103	0.193	0.024~0.703
Mitosis	-1.768	0.214	2.813	0.126	0.176	0.018~0.637

3 讨论

乳腺叶状肿瘤主要由上皮和间叶成分构成,可分为恶性、交界性、良性三个种类,其中乳腺良性叶状肿瘤约占所有乳腺叶状肿瘤的 41%~77%,恶性占 8%~35%,交界性占 13%~32%^[8]。该病的发病原因至今未明确,推测可能与地域、卫生习惯、年龄、种族、生育哺乳和内分泌变化等因素有关^[9,10]。乳腺良性叶状肿瘤的一般特征为间质细胞数量中等、核分裂象少以及间质细胞核轻度多形性,同时可出现小灶性浸润,肿瘤边界大多界限清晰,或呈推挤性^[11,12]。手术切除是治疗乳腺良性叶状肿瘤的主要方式,可获得较好的预后^[13]。以往常用的治疗方案为开放取瘤手术,虽可有效切除病变,但术后创伤大、手术切口瘢痕长、并发症发生率高,不足使得患者无法获得较好的治疗体验^[14-16]。此外,女性对外观上要求也越来越高,传统的开放取瘤手术对女性胸部美观造成巨大影响。使得临床中迫切需要寻找

一种疗效确切且创伤更小的治疗方法。

VAE 最初起源于乳腺病灶的穿刺活检,随后通过尝试将该术式用于一些病变较低的乳腺良性肿瘤的治疗中,可取得较好的效果,故逐渐被临床推广使用^[17]。该手术方案主要是指在 B 超的引导下,采用微创旋切系统,通过产生负压对乳腺肿块进行抽吸,当相关的乳腺肿块组织吸入至真空槽后,对其进行多次切割,最终达到切除病变的效果^[18-20]。本次研究结果表明 B 组术中出血量少于 A 组,术后并发症发生率低于 A 组,手术时间、伤口长度、住院时间、切口愈合时间均短于 A 组。提示采用超声引导下 VAE 治疗乳腺良性叶状肿瘤的疗效比传统方法更加显著。以往不少临床应用与调查显示超声引导下 VAE 可被患者所接受,是因为其具备术后并发症发生率低、创伤小的优势^[21,22]。主要可能与超声引导下 VAE 具有以下几个优势有关:进针更顺利,减少对乳腺组织损伤^[23];手术过程中,无需取出刀头,减少对患者的组织损伤^[24];旋切过程在封闭环境下完成,负

压吸引力更大,术中出血量可大大减少,同时还可降低感染几率,促进患者术后恢复^[25];可根据患者的肿瘤具体大小,从而设定适宜的刀头长度,损伤更小,起到微创的效果^[26];其系统智能化且操作手柄轻巧方便,可有效缩短手术时间^[27]。值得注意的是,超声引导下 VAE 的切口选择应尽量选取隐蔽部位切口,同时针对离乳头乳晕复合体较近的乳腺病灶,操作应更为细致,以免引起复合体缺血坏死、乳头溢液。另在旋切过程中应随切随压,术后弹力绷加压包扎过程中应避免患者运动,以减少出血的发生风险。

临床学者除了观察超声引导下 VAE 的安全性和有效性之外,术后局部复发也是其主要观察目标之一,随着复发次数的增加,肿瘤恶性程度也随之增高。本次研究结果显示,两组术后局部复发率对比差异无统计学意义,可见无论哪种手术方式治疗,都存在局部复发的风险。分析其复发的原因可能与其生物学特性相关。以往有研究结果显示^[28],术后残留的肿瘤组织切缘阳性是复发的主要原因。同时我们的研究还发现,同侧乳房纤维腺瘤史、核分裂与术后局部复发有关,但并不是乳腺良性叶状肿瘤患者术后局部复发的危险因素,本研究结果中肿瘤直径 ≥ 25 mm 才是其术后局部复发的危险因素。可能是因为腺体及瘤体组织具有一定变形性,肿瘤直径 <25 mm 者肿瘤体积相对较小,切除病变较完全,可以达到完全切除效果。而肿瘤直径 ≥ 25 mm 者,肿瘤体积相对较大,需多次进行切割,容易造成瘤腔内积气,影响 B 超观察,存在肿瘤切除不完全的风险,亦增加了肿瘤复发风险^[29,30]。目前对乳腺良性叶状肿瘤患者术后局部复发影响因素分析仍基于小数据的回顾性研究,尚需进一步的探讨。

综上所述,与开放手术治疗相比,超声引导下 VAE 治疗乳腺良性叶状肿瘤可有效改善患者围术期指标,减少并发症发生率,同时乳腺良性叶状肿瘤患者术后局部复发与肿瘤直径密切相关。

参考文献(References)

- [1] 王方, 杨向丽, 邢祉. 乳腺叶状肿瘤的影像学表现及病理对照[J]. 中国药物与临床, 2014, 14(12): 1656-1658
- [2] 刘晓燕, 李琳, 王丹, 等. 乳腺瘤功能磁共振成像与生物学预后因子的研究进展[J]. 现代生物医学进展, 2018, 18(7): 1380-1383, 1333
- [3] Chang J, Denham L, Dong EK, et al. Trends in the Diagnosis of Phyllodes Tumors and Fibroadenomas Before and After Release of WHO Classification Standards [J]. Ann Surg Oncol, 2018, 25 (10): 3088-3095
- [4] Xiao W, Zou Y, Zheng S, et al. Primary tumor resection in stage IV breast cancer: A systematic review and meta-analysis [J]. Eur J Surg Oncol, 2018, 44(10): 1504-1512
- [5] Brouwer de Koning SG, Vrancken Peeters MTFD, Józwiak K, et al. Tumor Resection Margin Definitions in Breast-Conserving Surgery: Systematic Review and Meta-analysis of the Current Literature [J]. Clin Breast Cancer, 2018, 18(4): e595-e600
- [6] Lane WO, Thomas SM, Blitzblau RC, et al. Surgical Resection of the Primary Tumor in Women With De Novo Stage IV Breast Cancer: Contemporary Practice Patterns and Survival Analysis [J]. Ann Surg, 2019, 269(3): 537-544
- [7] 肖献秋, 芮小平, 王力, 等. 超声引导联合 Encor 真空辅助微创旋切

- 系统治疗乳腺良性肿瘤的疗效 [J]. 宁夏医科大学学报, 2019, 41(12): 1265-1268
- [8] 潘军, 秦叔逵, 王琳, 等. 妊娠合并多次复发的乳腺恶性叶状肿瘤 1 例[J]. 临床肿瘤学杂志, 2018, 23(9): 861-862
- [9] Rodrigues MF, Truong PT, McKevitt EC, et al. Phyllodes tumors of the breast: The British Columbia Cancer Agency experience [J]. Cancer Radiother, 2018, 22(2): 112-119
- [10] Pascarella S, Maher Z, Goldbach A, et al. Giant phyllodes tumor of the breast[J]. Breast J, 2020, 26(3): 550-552
- [11] Kumar PV, Mokhtari M. Cytological Findings in Benign Phyllodes Tumors[J]. Acta Cytol, 2019, 63(1): 23-27
- [12] Choi N, Kim K, Shin KH, et al. Malignant and borderline phyllodes tumors of the breast: a multicenter study of 362 patients (KROG 16-08)[J]. Breast Cancer Res Treat, 2018, 171(2): 335-344
- [13] Erol T, İmamoğlu NE, Aydin B, et al. Primary tumor resection for initially staged IV breast cancer: An emphasis on programmed death-ligand 1 expression, promoter methylation status, and survival [J]. Medicine (Baltimore), 2019, 98(33): e16773
- [14] Lim SM, Kim JY, Park HS, et al. Effect of primary tumor resection on overall survival in patients with stage IV breast cancer[J]. Breast J, 2019, 25(5): 908-915
- [15] Santos JC, Bever SR, Pereira-da-Silva G, et al. Tumor resection ameliorates tumor-induced suppression of neuroinflammatory and behavioral responses to an immune challenge in a cancer survivor model[J]. Sci Rep, 2019, 9(1): 752
- [16] Holmes DR, Silverstein MJ. In Reply: Refining Tumor Resection Techniques for Managing Inferior Pole Breast Malignancies [J]. Ann Surg Oncol, 2017, 24(Suppl 3): 592
- [17] 徐华英. 超声引导乳腺肿物微创旋切手术的应用体会 [J]. 医学影像学杂志, 2020, 30(6): 998-1000
- [18] Michalik T, Matkowski R, Biecek P, et al. The use of ultrasonic scalpel lowers the risk of post-mastectomy seroma formation in obese women[J]. J Cancer, 2019, 10(15): 3481-3485
- [19] Nadeem M, Sahu A. Ultrasound guided surgery under Dilutional Local Anaesthesia and no sedation in breast cancer patients[J]. Surgeon, 2020, 18(2): 91-94
- [20] Rahimzadeh P, Imani F, Faiz SHR, et al. Impact of the Ultrasound-Guided Serratus Anterior Plane Block on Post-Mastectomy Pain: A Randomised Clinical Study [J]. Turk J Anaesthesiol Reanim, 2018, 46(5): 388-392
- [21] Kumar S, Goel D, Sharma SK, et al. A randomised controlled study of the post-operative analgesic efficacy of ultrasound-guided pectoral nerve block in the first 24 h after modified radical mastectomy[J]. Indian J Anaesth, 2018, 62(6): 436-442
- [22] Fajardo-Pérez M, Altınpulluk EY, García-Miguel J, et al. Ultrasound-Guided Continuous Interpectoral Block for Patient Undergoing Mastectomy and Axillary Clearance [J]. Turk J Anaesthesiol Reanim, 2017, 45(2): 112-115
- [23] Hoffmann J, Marx M, Hengstmann A, et al. Ultrasound-Assisted Tumor Surgery in Breast Cancer - A Prospective, Randomized, Single-Center Study (MAC 001) [J]. Ultraschall Med, 2019, 40 (3): 326-332

23-27

- [10] 中华医学会外科学会胰腺外科组. 重症急性胰腺炎诊疗方案[J]. 中华肝胆外科杂志, 2002, 8(2): 110-111
- [11] 王露, 黄兰, 邵颖颖, 等. 急性生理功能和慢性健康状况评分系统 II 及严重程度床边指数评分对急性胰腺炎病情变化的预测价值研究[J]. 中国全科医学, 2011, 14(32): 3693-3695
- [12] 屠冬英, 王玲. 医护一体化护理对急性胰腺炎患者干预效果和生存质量的影响[J]. 齐鲁护理杂志, 2019, 25(9): 103-105
- [13] 敖万萍, 傅小云, 付豹, 等. 黔北地区 ICU 重症急性胰腺炎流行病学特点及并发症对预后的影响 [J]. 中国中西医结合急救杂志, 2017, 24(3): 234-238
- [14] Shu W, Wan J, Chen J, et al. Initially elevated arterial lactate as an independent predictor of poor outcomes in severe acute pancreatitis[J]. BMC Gastroenterol, 2020, 20(1): 116
- [15] Qiu Q, Nian YJ, Tang L, et al. Artificial neural networks accurately predict intra-abdominal infection in moderately severe and severe acute pancreatitis[J]. J Dig Dis, 2019, 20(9): 486-494
- [16] 周彬, 陆惠波, 姜勇, 等. 重症急性胰腺炎患者并发感染的影响因素与病原菌及耐药性分析[J]. 中华医院感染学杂志, 2019, 29(12): 1824-1828
- [17] Matsuda Y, Masuda Y, Shimoji K, et al. Severe Acute Pancreatitis in Autopsies Associated With Surgeries and Severe Inflammatory Diseases[J]. Pancreas, 2019, 48(10): 1321-1328
- [18] Robin-Lersundi A, Abella Alvarez A, San Miguel Mendez C, et al. Multidisciplinary Approach to Treating Severe Acute Pancreatitis in a Low-Volume Hospital[J]. World J Surg, 2019, 43(12): 2994-3002
- [19] Xia S, Ni Y, Zhou Q, et al. Emodin Attenuates Severe Acute Pancreatitis via Antioxidant and Anti-inflammatory Activity [J]. Inflammation, 2019, 42(6): 2129-2138
- [20] Wang X, Xu J, Li J, et al. Effect of regional arterial infusion combined with early enteral nutrition on severe acute pancreatitis[J]. J Int Med Res, 2019, 47(12): 6235-6243
- [21] He HW, Zhang H. The efficacy of different doses of ulinastatin in the treatment of severe acute pancreatitis[J]. Ann Palliat Med, 2020, 9(3): 730-737
- [22] 赵二鹏, 崔乃强, 苗彬, 等. APACHE-II 评分对重症胰腺炎继发感染的早期预测[J]. 中国中西医结合外科杂志, 2004, 10(4): 271-27
- [23] Kim YJ, Kim DB, Chung WC, et al. Analysis of factors influencing survival in patients with severe acute pancreatitis [J]. Scand J Gastroenterol, 2017, 52(8): 904-908
- [24] Quero G, Covino M, Ojetti V, et al. Acute pancreatitis in oldest old: a 10-year retrospective analysis of patients referred to the emergency department of a large tertiary hospital[J]. Eur J Gastroenterol Hepatol, 2020, 32(2): 159-165
- [25] Li M, Xing XK, Lu ZH, et al. Comparison of Scoring Systems in Predicting Severity and Prognosis of Hypertriglyceridemia-Induced Acute Pancreatitis[J]. Dig Dis Sci, 2020, 65(4): 1206-1211
- [26] 沈凯, 张立军, 李洁, 等. 重症急性胰腺炎预后影响因素分析[J]. 河北医药, 2017, 39(5): 660-662, 667
- [27] Ibadov RA, Arifjanov AS, Ibragimov SK, et al. Acute respiratory distress-syndrome in the general complications of severe acute pancreatitis[J]. Ann Hepatobiliary Pancreat Surg, 2019, 23(4): 359-364
- [28] Fonseca Sepúlveda EV, Guerrero-Lozano R. Acute pancreatitis and recurrent acute pancreatitis: an exploration of clinical and etiologic factors and outcomes[J]. J Pediatr (Rio J), 2019, 95(6): 713-719
- [29] Arutla M, Raghunath M, Deepika G, et al. Efficacy of enteral glutamine supplementation in patients with severe and predicted severe acute pancreatitis- A randomized controlled trial [J]. Indian J Gastroenterol, 2019, 38(4): 338-347
- [30] 林文, 王凯, 蒋小玲, 等. 重症胰腺炎患者并发症的观察与护理[J]. 护士进修杂志, 2018, 33(2): 150-151

(上接第 4282 页)

- [24] Pei L, Zhou Y, Tan G, et al. Outcomes Research Consortium. Ultrasound-Assisted Thoracic Paravertebral Block Reduces Intraoperative Opioid Requirement and Improves Analgesia after Breast Cancer Surgery: A Randomized, Controlled, Single-Center Trial [J]. PLoS One, 2015, 10(11): e0142249
- [25] Zandi A, Khayamian MA, Saghaei M, et al. Microneedle-Based Generation of Microbubbles in Cancer Tumors to Improve Ultrasound-Assisted Drug Delivery [J]. Adv Healthc Mater, 2019, 8(17): e1900613
- [26] 张少玲, 连臻强, 余海云, 等. 乳腺良性叶状肿瘤真空辅助旋切与开放手术对术后局部复发的影响 [J]. 中华外科杂志, 2020, 58(2): 110-113
- [27] 程磊. 彩超引导下真空辅助旋切系统微创旋切术对触诊阴性乳腺占位性病变的临床诊断和治疗价值[J]. 医药论坛杂志, 2020, 41(2): 114-116
- [28] 刘静, 齐晓伟, 鲍洋秋, 等. 真空辅助微创旋切系统在乳腺肿块活组织检查中的应用 [J]. 中华乳腺病杂志 (电子版), 2019, 13(1): 60-62
- [29] 周永刚, 段云友, 赵华栋, 等. 超声术前评估及精准定位在真空辅助微创旋切系统治疗乳腺多发良性包块中的应用[J]. 临床超声医学杂志, 2019, 21(3): 212-214
- [30] 刘蜀, 邹佳黎, 周富林, 等. 超声引导下真空辅助旋切术治疗乳腺良性疾病: 附 1267 例报告 [J]. 南方医科大学学报, 2017, 37(8): 1121-1125