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单向纳入式人工胃底活瓣在食管-胃胸内吻合抗返流中的应用研究*

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摘要 目的:探讨单向纳入式人工胃底活瓣用于食管-胃胸内吻合抗返流患者的临床效果。**方法:**选择2017年3月-2018年3月入院的食管中下段癌根治术患者70例,所有患者均在腹腔镜下完成全胸腹腔镜下食管-胃胸内吻合手术,术后采用胃肠吻合器完成食管胃右胸内吻合完成消化道重建。根据抗返流方法分为对照组(n=35例)和观察组(n=35例)。对照组术后包埋吻合口,观察组术后采用单向纳入式人工胃底活瓣,两组治疗完毕后对患者效果进行评估。记录并比较两组治疗后痊愈、全身衰竭死亡、吻合口瘘、返酸及吐苦水返流症状、烧心感的发生率;采用WHOQol-BREF生活质量表对两组治疗前、治疗后生活质量进行比较。**结果:**观察组治疗后痊愈率显著高于对照组(71.43% vs. 42.86%, $P<0.05$),全身衰竭死亡、吻合口瘘、返酸及吐苦水返流症状、烧心感发生率均明显低于对照组($P<0.05$)。两组治疗后生理健康、心理状态、社会关系、周围环境及独立能力评分均显著高于治疗前($P<0.05$),且观察组治疗后生理健康、心理状态、社会关系、周围环境及独立能力评分均高于对照组($P<0.05$)。**结论:**单向纳入式人工胃底活瓣用于食管中下段癌根治术患者能降低返流症状的发生率,能提高患者生活质量。

关键词:单向纳入式人工胃底活瓣;食管中下段癌根治术;返流症状;生活质量;食管-胃胸内吻合

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Application of One-way Inclusion Artificial Gastric Foot Valve for the Anti-reflux of Esophago-gastric Anastomosis*

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ABSTRACT Objective: To investigate the clinical effect of one-way artificial gastric fundus valve Utend on the patients with anti-reflux in the esophagogastric anastomosis. **Methods:** A total of 70 patients undergoing radical esophageal cancer from March 2017 to March 2018 were selected. All the patients underwent laparoscopic laparoscopic esophageal and intragastric anastomosis. Intestinal stapler completed esophagogastric right intrathoracic anastomosis was performed to complete the reconstruction of the digestive tract. According to the anti-reflux method, they were divided into the control group (n=35 cases) and the observation group (n=35 cases). In the control group, the anastomosis was not included in the postoperative period, and in the observation group, the one-way integrated artificial gastric fundus valve was used after the operation. The effect of the patient after the treatment was evaluated in both groups. Record and count the two groups recovered after compare, death due to systemic failure, anastomotic leakage, acid reflux, diarrhea reflux symptoms, and heartburn sensation; WHOQol-BREF life scale was used to evaluate the quality of life before and after treatment in both groups. The incidence of reflux and the impact on quality of life were compared between two groups. **Results:** The recovery rate of observation group after treatment was higher than that of the control group (71.43% vs. 42.86%, $P<0.05$). The death rate of systemic failure, anastomotic leakage, acid reflux, diarrhea and diarrhea reflux symptoms, and burning heart sensation were lower in the observation group than those in the control group ($P<0.05$). The physical health, mental status, social relationship, surrounding environment and independent ability scores of observation group and the control group after treatment were all higher than those before treatment ($P<0.05$); the observation group received physical health and psychological state after treatment. The scores of social relations, surrounding environment and independent ability were higher than those in the control group ($P<0.05$). **Conclusion:** One-way integrated artificial gastric fundus flap can be used to reduce the incidence of reflux symptoms in patients with esophageal mid-lower cancer radical resection, and improve the quality of life of patients.

Key words: One-way integrated artificial gastric fundus valve; Esophageal mid-lower cancer radical surgery; Reflux symptoms; Quality of life; Esophageal-gastric anastomosis

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前言

食管癌是临床上常见的消化道恶性肿瘤,全世界每年发病率约有 30 万人,具有发病率高、死亡率高、治愈率低等特点。我国是食管癌的高发地区之一,每年约有 15 万人死于该疾病,且男性发病率略高于女性^[1]。患者发病后临床表现为进行性咽下困难,起初难咽下干食物,继而是半流质食物,最后甚至水、唾液均难以咽下。手术是食管癌患者中常用的治疗方法,通过手术不仅需要根治切除病灶食管,完成淋巴结的清扫,还需要完成上消化道的重建^[2]。国内研究表明^[3]食管-胃胸内吻合适用于多数中下段食管癌根治术患者有助于延长患者寿命,利于患者恢复。

返流是食管中下段癌根治术患者中常见的并发症,不仅会影响患者治疗预后,还会延长住院时间,不利于患者恢复。有研究显示将单向纳入式人工胃底活瓣用于食管-胃胸内吻合抗返流患者中有助于改善患者预后,提高患者生活质量,但是该结论有待验证^[4]。因此,本研究选择 2017 年 3 月-2018 年 3 月入院治疗的食管中下段癌根治术患者 70 例,探讨了单向纳入式人工胃底活瓣在食管-胃胸内吻合抗返流患者中的临床效果,结果报道如下。

1 资料与方法

1.1 临床资料

选择 2017 年 3 月-2018 年 3 月入院治疗的食管中下段癌根治术患者 70 例,根据抗返流方法分为对照组和观察组。对照组 35 例,男 21 例,女 14 例,年龄(41-74)岁,平均(64.69±3.64)岁;病灶长度(2-5)cm,平均(3.12±0.41)cm。肿瘤分期:I 期 17 例,II 期 21 例,III 期 7 例。观察组 35 例,男 19 例,女 16 例,年龄(42-75)岁,平均(64.75±3.67)岁;病灶长度(2-6)cm,平均(3.21±0.44)cm。肿瘤分期:I 期 15 例,II 期 24 例,III 期 6 例。本研究均在医院伦理委员会监督、批准下完成,两组性别、年龄、病灶长度及肿瘤分期差异无统计学意义($P>0.05$),具有可比性。

1.2 纳入、排除标准

纳入标准:(1)符合食管癌临床诊断标准^[5],均经手术组织检查最终确诊;(2)符合全胸腔镜下食管-胃胸内吻合手术适应证;(3)能遵循医嘱完成相关检查、治疗者。

排除标准:(1)合并慢性阻塞性肺疾病、高血压、糖尿病等慢

性疾病者;(2)伴有明显精神异常或预计生存期<3 个月者;(3)合并心脑血管疾病或伴有明显肝肾功能异常者。

1.3 治疗方法

两组患者均行双腔气管插管,行静脉吸入复合麻醉,腹腔手术过程中行双肺通气,行左侧单肺通气,术中未使用人工气胸。手术患者位于腹侧,第一助手位于背侧。对照组:术后包埋吻合口。手术过程中游离出食管下段、贲门、胃,在距离肿瘤上、下缘各 5 cm 以上切除肿瘤,完成淋巴结的清扫,缝合胃残端,形成人工胃底,在胃后壁距离人工胃底约 5 cm 部位作长为 3 cm 的横切口,在食管端完成吻合,同时将胃壁包绕套食管 2-3 cm,然后将人工胃底折叠上提紧靠食管并进行固定,形成人工 His 角。观察组:术后采用单向纳入式人工胃底活瓣。食管癌手术过程中事先制作管状胃,吻合时预留一人工胃底,在完成吻合后,将此人工胃底向胃腔内单向纳入,形成人工伙伴,使仅仅可以向胃腔远端单向开放,发挥良好的抗返流作用。两组术后均加强呼吸道管理,鼓励患者早期咳嗽、排痰,加强患者营养支持干预,结合患者情况进行肠内营养,两组治疗完毕后对患者效果进行评估。

1.4 观察指标

(1)治疗预后情况。记录并统计两组治疗后痊愈、全身衰竭死亡、吻合口瘘、返酸及吐苦水返流症状、烧心感发生率;(2)生活质量。采用 WHOQol-BREF 生活量表对两组治疗前、治疗后 6 个月从生理健康、心理状态、社会关系、周围环境、独立能力角度进行评估。量表覆盖 5 个领域,24 个方面,每个方面具有 4 个问题条目,共计 100 个问题,量表信度 0.581,效度>0.8,分值越高,生活质量越高^[6]。

1.5 统计学分析

采用 SPSS18.0 软件处理,计数资料采用 n(%)表示,行 χ^2 检验,计量资料采用($\bar{x}\pm s$)表示,行 t 检验,以 $P<0.05$ 差异有统计学意义。

2 结果

2.1 两组治疗效果的比较

观察组治疗后痊愈率显著高于对照组(71.43% vs. 42.86%, $P<0.05$),全身衰竭死亡、吻合口瘘、返酸及吐苦水返流症状、烧心感发生率均显著低于对照组($P<0.05$),见表 1。

表 1 两组治疗效果的比较[例(%)]
Table 1 Comparison of the efficacy between two groups[n (%)]

Groups	n	Recovery	Death general cachexia	Anastomotic fistula	Reflux and vomit bitterwater reflux symptoms	Heartburn
Observation group	35	25(71.43)	3(8.57)	4(11.43)	2(5.71)	1(2.86)
Control group	35	15(42.86)	5(14.29)	6(17.14)	6(17.14)	3(7.57)
χ^2	/	6.391	8.095	5.692	7.868	5.889
P	/	0.013	0.019	0.043	0.027	0.033

2.2 两组治疗前后生活质量的比较

两组治疗后生理健康、心理状态、社会关系、周围环境及独立能力评分均高于治疗前($P<0.05$),观察组治疗后生理健康、心

理状态、社会关系、周围环境及独立能力评分均高于对照组($P<0.05$),见表 2。

表 2 两组治疗前后生活质量的比较(分, $\bar{x} \pm s$)Table 2 Comparison of the quality of life between two groups(score, $\bar{x} \pm s$)

Groups		Physical health	Mentality	Social relations	Surrounding	Independent ability
Observation group (n=35)	Before treatment	14.38 $\pm$ 3.46	15.09 $\pm$ 3.48	16.33 $\pm$ 4.05	14.30 $\pm$ 3.89	15.11 $\pm$ 3.49
	After treatment	25.39 $\pm$ 2.31	24.85 $\pm$ 2.33	26.09 $\pm$ 2.36	26.34 $\pm$ 2.38	25.99 $\pm$ 2.36
	t	10.281	9.872	14.582	12.195	11.287
	P	0.000	0.000	0.000	0.000	0.000
Control group (n=35)	Before treatment	14.37 $\pm$ 3.45	15.10 $\pm$ 3.47	16.32 $\pm$ 4.03	14.29 $\pm$ 3.87	15.10 $\pm$ 3.47
	After treatment	19.38 $\pm$ 2.47	20.31 $\pm$ 3.09	20.14 $\pm$ 3.23	21.25 $\pm$ 2.36	20.94 $\pm$ 2.34
	t	9.386	12.195	13.206	8.774	15.296
	P	0.000	0.000	0.000	0.000	0.000
t _{ob group VS control group}		8.392	9.884	12.105	10.291	11.291
P _{ob group VS control group}		0.000	0.000	0.000	0.000	0.000

3 讨论

食管癌的发病机制复杂,以往研究显示吸烟患者与饮酒患者食管癌的发病率较高,大量临床证据显示饮食中过咸或者食用含有亚硝酸盐的食物、某些致癌生物性真菌造成的感染、饮食喜好快吃、热吃、身体缺乏相应的微量元素及自身不喜运动、家族某个成员携带遗传基因等都是食管癌发病的危险因子^[7-10]。外科手术是该类患者比较常用的治疗方法,患者自身情况较好、没有禁忌症并且无远端转移采取手术治疗是最佳治疗手段,但是术后并发症不可避免,如何预防早中期食管癌患者手术切除病灶后预防并发症是改善食管癌患者预后的关键。

食管-胃胸内吻合已经被广大患者及家属所采纳。然而,食管-胃胸内吻合术后不可避免会出现全身衰竭死亡、吻合口瘘、返酸及吐苦水返流症状、烧心感等并发症^[11-13]。Liu Y 等^[14]报道腹腔镜胸腔镜下食管癌切除术的中手术并发症死亡率为 21.9%-22.4%,如何改进手术延长患者寿命变得迫在眉睫。近年来,单向纳入式人工胃底活瓣在食管中下段癌根治术患者中得到应用,且效果理想。Yanagimoto Y 等报^[15]道人工胃底活瓣用于食管切除术后反流的动物实验研究中安全可行。罗建飞等报^[16]道人工胃底活瓣用于消化道重建方式安全、操作简便、术后恢复快、符合肿瘤手术无瘤原则。本研究中,观察组治疗后痊愈率高于对照组,全身衰竭死亡、吻合口瘘、返酸及吐苦水返流症状、烧心感发生率均低于对照组。由此可见将单向纳入式人工胃底活瓣用于食管癌根治术食管-胃胸内吻合抗返流患者中有助于提高临床效果,发挥良好的抗返流作用,利于患者早期恢复。单向纳入式人工胃底活瓣重建了胃底,使得患者术后食管胃吻合部位更加接近食管、贲门生理状态,具有良好的抗返流效果,有助于提高缓解生活质量^[17,18]。同时,单向纳入式人工胃底活瓣避免了传统手术对于正常组织的过度切除,能最大限度保留正常胃组织,减少术后膈气、气顶现象的发生,有助于降低术后吻合口狭窄及吻合口瘘等并发症发生率。吻合器吻合后,四周包埋后能发挥食管下段括约肌作用,使得吻合部位处于闭合状态,实现人造胃底缓冲作用,避免了巾式包埋,减少吻合口狭窄发生率,并且手术操

作相对简单,对医生的专业技能要求较低,能提高患者术后生活质量^[19,20]。本研究中,观察组治疗后生理健康、心理状态、社会关系、周围环境及独立能力评分,均高于对照组。但为了降低食管癌患者术后返流发生率,围术期应加强患者生命体征监测,结合每一位患者情况选择合适的抗返流方法,使得患者的治疗更具科学性。

综上所述,将单向纳入式人工胃底活瓣用于食管中下段癌根治术患者中能降低返流症状发生率,能提高患者生活质量。

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