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· 胃癌专题研究 ·

## 术前 ASA 分级及手术范围对胃癌根治术患者预后的影响

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### 摘要

**目的:** 探讨术前 ASA 分级及手术范围对不同年龄胃癌根治术后患者预后的影响。

**方法:** 回顾性分析 188 例首次行胃癌根治术的患者资料, 根据 ASA 分级、手术范围、年龄, 分别将患者区分为 ASA 高值 (分级  $\geq 3$ ) 与 ASA 低值 (分级  $< 3$ ) 患者、胃全切与胃部分切除患者、中青年 ( $< 60$  岁) 与老年 ( $\geq 60$  岁) 患者, 比较不同因素分组的患者术后生存时间。

**结果:** 生存分析结果显示, ASA 高值组术后生存时间短于 ASA 低值组 ( $P < 0.05$ ); 中青年患者中, 胃部分切除者生存时间长于全胃切除者 ( $P < 0.05$ ); 老年患者中, 胃部分切除者生存时间与全胃切除组生存时间差异无统计学意义 ( $P > 0.05$ ); ASA 高值患者中, 胃部份切除者生存时间与全胃切除者生存时间差异无统计学意义 ( $P > 0.05$ ); 而 ASA 低值患者中, 胃部分切除患者生存时间长于全胃切除患者 ( $P < 0.05$ )。

**结论:** ASA 分级可作为胃癌根治术患者预后判断的指标, 对中青年及术前 ASA 分级低患者应严格掌握手术范围, 尽量避免不必要的大范围手术。

### 关键词

胃肿瘤 / 外科学; 胃切除术 / 方法; 危险性评估; 预后  
中图分类号: R735.2

## Influence of preoperative ASA classification and scope of surgical operation on prognosis of gastric cancer after radical gastrectomy

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### Abstract

**Objective:** To investigate the influence of preoperative ASA classification and scope of surgical operation on the prognosis of gastric cancer after radical operation in patients of different ages.

**Methods:** The clinical data of 188 gastric cancer patients who underwent primary radical resection were retrospectively analyzed. According to the ASA classification, scope of surgical operation and age, the patients were distinguished into high ASA score (score  $\geq 3$ ) and low ASA score (score  $< 3$ ) patients, total gastrectomy group and partial gastrectomy patients, and young, middle-aged ( $< 60$  years of age) and old-aged ( $\geq 60$  years of age) patients, respectively. The postoperative survival time between patients grouped by above factors was compared.

**Results:** Survival analysis showed that the postoperative survival time in patients with high ASA score was shorter than that in patients with low ASA score ( $P < 0.05$ ); the postoperative survival time in patients undergoing partial gastrectomy was longer than that in those undergoing total gastrectomy among the young, middle-aged ( $P < 0.05$ ),

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while there was no significant difference among the old-aged ( $P>0.05$ ); the postoperative survival time had no significant difference between patients undergoing partial gastrectomy and total gastrectomy among those with high ASA score ( $P>0.05$ ), but which was longer in the former than that in the latter among those with low ASA score ( $P<0.05$ ).

**Conclusion:** ASA classification can be used to estimate the prognosis of gastric cancer patients after radical operation. The scope of surgical operation should be strictly controlled in young patients and patients with low preoperative ASA score, and unnecessarily extended operation should be avoided.

**Key words** Stomach Neoplasms/surg; Gastrectomy/methods; Risk Assessment; Prognosis

**CLC number:** R735.2

尽管胃癌发病率有下降的趋势,但其仍为全球范围内发病率占第4位、死亡人数占第2位的恶性肿瘤。胃癌具有发病率高及病死率高的特点,且多数患者确诊时已为进展期或晚期<sup>[1]</sup>,其手术方式及手术范围与肿瘤大小、分化程度、远处转移、浸润深度、临床分期等相关,对于胃癌患者的预后判定指标也有许多,如分期、分化程度、血管神经浸润、转移等,本文分析术前ASA的分级及手术范围其对胃癌根治术患者预后的影响,为手术范围及预后判定提供新的思路。

## 1 资料与方法

### 1.1 一般资料

回顾性分析2010年1月—2011年6月福建医科大学附属第一医院胃肠外科首次行胃癌根治术患者188例(本组不包含晚期老年胃癌患者行剖腹探查胃-空肠吻合术及姑息性手术的患者),其中男137例,女51例;年龄36~80岁,平均年龄为60岁。

### 1.2 随访

随访通过门诊及电话进行,术后总体生存期指从手术日期直到患者死亡或者最后随访时间。所有患者的随访截止时间为术后36个月。

### 1.3 统计学处理

应用SPSS 19.0统计学软件,应用Kaplan-Meier曲线描述生存情况,生存曲线间的差异用Log-rank检验, $P<0.05$ 为差异有统计学意义。

## 2 结果

### 2.1 胃癌患者的一般情况

188例胃癌患者中腺癌163例,神经内分泌癌1例,印戒细胞癌5例,低-未分化癌14例,鳞状细

胞癌4例,腺鳞癌1例。发生部位:胃小弯5例,胃体36例,胃角4例,胃窦84例,胃底-贲门14例,全胃6例,贲门39例。手术范围:远端胃部份切除92例,近端胃部份切除23例,全胃切除73例。ASA分级P1级77例,P2级62例,P3级36例,P4级13例,P5、P6级0例。中青年组92例( $<60$ 岁),老年组96例( $\geq 60$ 岁)。

### 2.2 ASA分级与预后的关系

根据ASA分级将患者分为ASA高值组(分级 $\geq 3$ )与ASA低值组(分级 $<3$ ),分析比较两组与胃癌根治术患者术后生存时间。结果显示,ASA高值组平均生存时间(28.754个月)低于ASA低值组平均生存时间(31.424个月),Kaplan-Meier曲线及Log-rank检验分析显示,两组差异有统计学意义( $P=0.033$ )(图1)。

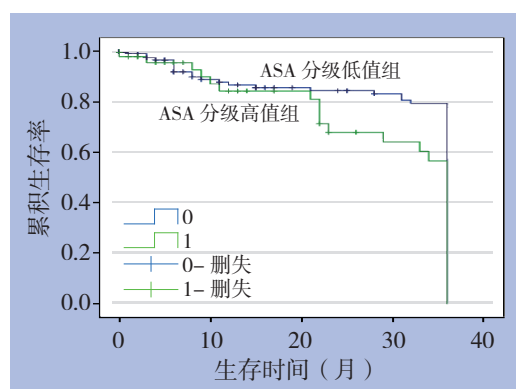


图1 不同ASA分级患者的生存曲线

Figure 1 Survival curves of patients with different ASA scores

### 2.3 手术范围对各组预后的影响

根据手术范围,将患者分为胃部份切除组与全胃切除组,依据年龄分为中青年组与老年组,分析手术范围对各组预后影响。结果显示,中青年组中,胃部分切除组生存时间均值(35.844个月)高

于全胃切除组平均生存时间均值(27.336个月),Kaplan-Meier曲线及Log-rank检验分显示,差异有统计学意义( $P=0.000$ )(图2A);老年组中,胃部分切除组生存时间与全胃切除组生存时间差异无统计学意义( $P=0.599$ )(图2B);ASA高值组中,胃部分切除组生存时间与全胃

切除组生存时间差异无统计学意义( $P=0.305$ )(图2C);ASA低值组中,胃部分切除组生存时间均值(33.481个月)高于全胃切除组平均生存时间(27.423个月),Kaplan-Meier曲线及Log-rank检验分析显示,差异有统计学意义( $P=0.004$ )(图2D)。

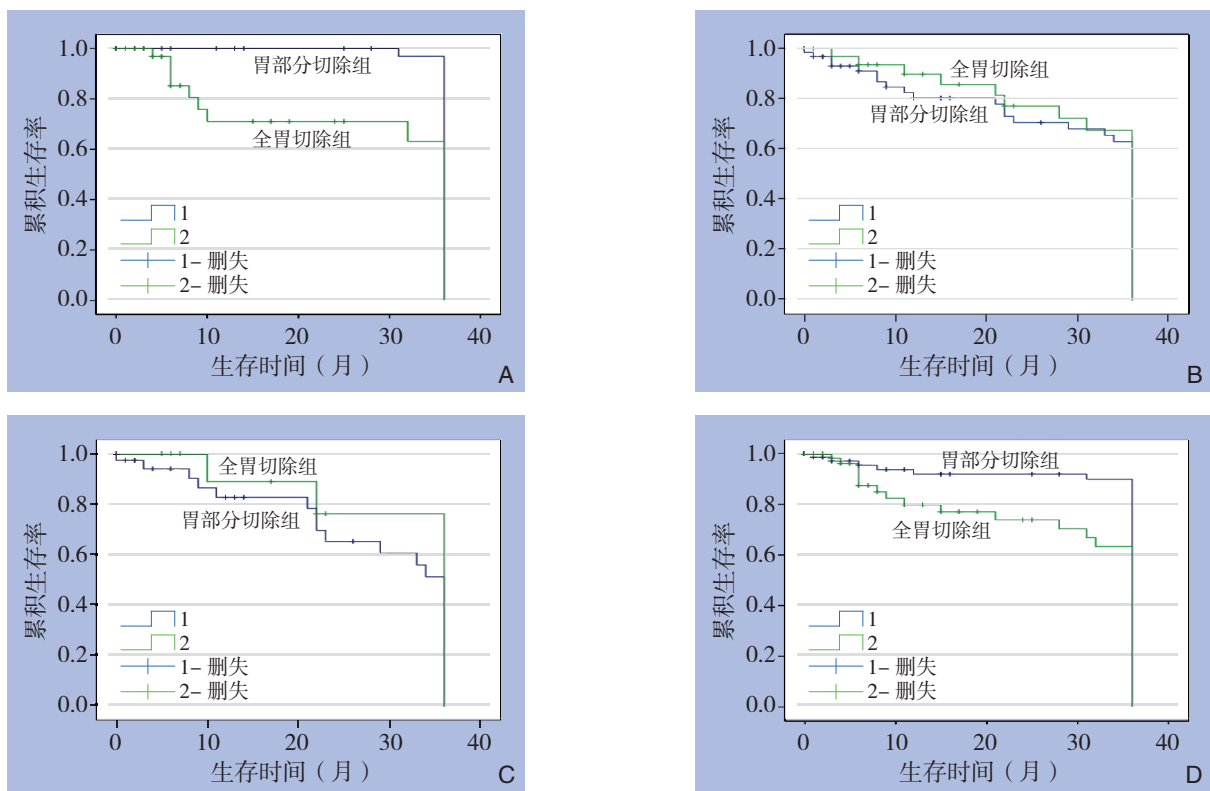


图2 手术范围对不同因素患者生存的影响 A:不同手术范围中青年患者的生存曲线;B:不同手术范围老年患者的生存曲线;C:不同手术范围ASA高值患者的生存曲线;D:不同手术范围ASA低值患者的生存曲线

Figure 2 Influence of surgical operation scope on postoperative survival of patients with different clinical factors A: Survival curves of young and middle-aged patients with different surgical operation scope; B: Survival curves of old-aged patients with different surgical operation scope; C: Survival curves of high ASA score patients with different surgical operation scope; D: Survival curves of low ASA score patients with different surgical operation scope

### 3 讨论

胃癌是胃黏膜上皮和腺上皮发生的恶性肿瘤,占胃恶性肿瘤的95%<sup>[2]</sup>。目前,胃癌的治疗仍以手术为主,辅以放疗、化疗、中药治疗及生物治疗的综合治疗。对于胃癌的治疗应依据患者的临床病理分期及肿瘤的生物特性,实施正确的手术方式及放化疗联合方案,根据癌灶的部位及大小,确定胃癌根治手术切除的范围:行胃部分切时应切除距肿瘤缘5 cm以上,全胃切除时需合并食管下段及十二指肠第一段<sup>[3]</sup>。化疗则通常以氟尿嘧啶以及顺铂为主<sup>[4]</sup>,就目前有关胃癌放疗所

取得的进展看,术前放疗的价值更高,而单纯性放疗的效果并不理想<sup>[5]</sup>。胃癌根治术是目前常用方法之一,但文献<sup>[6]</sup>报道,胃癌根治术患者术后5年生存率仍低于50%,因此,对胃癌根治术患者预后进行深入的分析,对于发现相关危险因素并改进治疗方式从而提高预后有重要的意义。

1962年美国麻醉医师协会正式通过了ASA分级的全身评估系统<sup>[7]</sup>,虽然期间也有学者提出放弃此方法<sup>[8]</sup>,但现仍成为在术前判断麻醉风险和外科手术的最有价值的方法<sup>[9-11]</sup>,该系统被广泛的应用于围手术期的风险评估,如预测肾切除术患者的输血情况和术后并发症的发生率<sup>[12]</sup>、预测前列腺

根治术后的并发症<sup>[13]</sup>，妇科手术持续时间与手术风险程度的预测<sup>[14]</sup>，急诊患者预后预测<sup>[15-16]</sup>等等，应用非常广泛<sup>[17-21]</sup>。

本文就ASA评分与预后及中青年、老年、ASA分级高患者、ASA分级低患者与手术范围及预后做了分析，发现ASA高值组平均生存时间均值低于ASA低值组，Kaplan-Meier曲线及Log-rank检验分析曲线间差异，发现ASA低值组生存时间高于高值组，差异有统计学意义（ $P<0.05$ ），表明ASA分级可作为预后判定指标；中青年组中胃部分切除组生存时间高于全胃切除组，ASA低值组中，胃部分切除组生存时间高于全胃切除组，差异有统计学意义（均 $P<0.05$ ），而老年及ASA高值组生存时间无明显差异，提示中青年组及ASA低值组更应严格掌握手术范围，尽量避免不必要的大范围手术，此结果可能与大范围手术提高了围术期并发症，远期生活质量降低有关。

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