肺叶切除术后化疗与支气管胸膜晚期瘘关系的研究

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[摘 要] **目的** 探讨肺叶切除术后行辅助化疗与支气管胸膜晚期瘘发生率之间的关系。**方法** 2009 年 1 月至 2014 年 6 月我院胸外科 246 例患者行肺叶切除术,按是否化疗分为化疗组与未化疗组,其中化疗组 138 例在肺叶切除术后 1 个月内行辅助化疗,未化疗组 108 例术后未行辅助化疗,2 组患者在术后进行支气管胸膜晚期瘘检查诊断,统计其发生率,分析辅助化疗和支气管胸膜瘘发生率之间的关系。**结果** 化疗组发生支气管胸膜瘘 12 例,发生率为 8.70%;未化疗组发生支气管胸膜瘘 2 例,发生率为 1.85%,2 组比较差异具有统计学意义($P>0.05$)。**结论** 术后行辅助化疗会增加患者支气管胸膜晚期瘘的发病率。

[关键词] 肺叶切除术;支气管胸膜瘘;化疗
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Clinical analysis of the relationship between chemotherapy after pneumonectomy and bronchopleural fistula

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Abstract: Objective To evaluate the relationship between chemotherapy after pulmonary resection and the incidence rate of bronchopleural fistula. **Methods** 246 patients who received pulmonary resection in our hospital from January 2009 to June 2014 were chosen, and they were divided into the chemotherapy group and the non-chemotherapy group. The 138 patients in the chemotherapy group received chemotherapy one month after resection while the other 108 in the non-chemotherapy group did not. Bronchopleural fistula of the two groups were diagnosed and analyzed in order to evaluate the relationship between chemotherapy after pulmonary resection and incidence rate of bronchopleural fistula. **Results** There were 12 cases of bronchopleural fistula in the chemotherapy group with an incidence rate of 8.70%, while there were 2 cases of bronchopleural fistula in the non-chemotherapy group with an incidence rate of 1.85%. The difference between the two groups is statistically significant ($P<0.05$). **Conclusion** Chemotherapy after pulmonary resection will increase the incidence rate of bronchopleural fistula.

Keywords: pulmonary resection; bronchopleural fistula; chemotherapy

肺癌的发病率及死亡率均居恶性肿瘤首位,肺叶切除和全肺切除是目前治疗肺癌的常用术式[1]。支气管胸膜瘘指各级支气管与胸膜腔交通形成的窦道,是肺癌肺叶切除术少见并发症。目前临床所见支气管胸膜瘘 2/3 以上并发于肺部手术之后,其发生率为 2% ~ 16%[2-3],是一种严重的肺切除术后并发症,往往合并脓胸。而支气管胸膜瘘的存在表明胸膜腔将持续受到污染,肺难以复张,余肺常可有吸入性肺炎。对于多数脓胸患者来说,存在支气管胸膜瘘将影响愈后,发展成慢性甚至死亡。支气管胸膜瘘分为早发和迟发两种类型。早发指肺叶切除术后 1 个月内发生的支气管胸膜瘘,迟发(晚期瘘)是指肺叶切除术后 1 个月以后发生的支气管胸膜瘘,临床上较少报道[4-5]。我院自 2009 年 1 月至 2014 年 6 月有 246 例患者进行肺叶切除术,其中 138 例术后 1 月内行术后辅助化疗。本文统计分析支气管胸膜晚期瘘(bronchopleural fistula, BPF)的发生率,探讨术后辅助化疗与支气管胸膜瘘发生之间的关系。

1 资料与方法

1.1 临床资料

本组患者 246 例,其中男 189 例,女 57 例,年龄 40 ~ 71 岁。术前检查无肺部感染、支气管扩张、胸廓畸形等合并疾病。按术后是否化疗分为化疗组(138 例)和未化疗组(108 例)。所有操作符合医院伦理委员会规定,患者均签署了知情同意书。化疗组 138 例,术后 1 个月内行术后辅助化疗,辅助化疗方案为含铂类双药方案化疗,其剂量遵照药物说明书,按照患者体表面积计算。未化疗组患者 108 例,在行标准肺叶切除术后未行任何治疗,仅在术后行常规 CT、B 超、磁共振、ECT 检查。2 组患者一般资料比较差异无统计学意义($P>0.05$),具有可比性。

1.2 方法

1.2.1 手术方法 采用传统开胸手术,左侧手术取第 5 肋间前外侧切口,手术方式按照单项式操作,即先打开纵膈胸膜,暴露肺静脉,直线切割缝合器同步切割缝合。按照解剖次序,游离气管,直线切割缝合器同步切割缝合。最后处理肺动脉,采用双 4 号线双重结扎处理。余肺裂行直线切割缝合器断离。超声刀、电刀清扫 4L、5 组、6 组、7 组、8 组、9 组、10 组淋巴结。

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右侧第 5 肋间前外侧切口,肺叶切除步骤同左侧,肺叶切除后,清扫 2R、4R、7 组、8 组、9 组、10 组淋巴结。

1.2.2 化疗方案 化疗组 108 例患者采用含铂类双药方案化疗,鳞癌选用 TP(紫杉醇 + 奈达铂)方案,化疗剂量按照体表面积计算,紫杉醇 135 mg/m^2,奈达铂 80 mg/m^2;腺癌选用 DP(多西紫杉醇 + 奈达铂),化疗剂量按照体表面积计算,多西紫杉醇 80 mg/m^2,奈达铂 80 mg/m^2。

1.2.3 支气管胸膜晚期瘘(Bronchopleural fistula, BPF)诊断依据 主要诊断依据:①术后 1 个月才发生支气管胸膜晚期瘘(14 例患者均在此时限范围之内);②术后常常出现持续刺激性咳嗽,有时随体位变化出现刺激性咳嗽并咳出胸液样痰,尤以健侧卧位时明显[6-7];③有时患者还会有发热、呼吸困难等症状;④胸腔内注入亚甲蓝注射液,痰被染成蓝色;⑤辅助检查血常规提示血象偏高,中性粒细胞比例升高;⑥胸部 X 线表现为液气胸;⑦纤维支气管镜、CT 检查可协助了解残端情况,有助于协助医生区分症状是肺实质性病变还是胸腔病变(本组 14 例患者均经以上检查提示支气管胸膜瘘)。

1.3 统计学方法

用 SPSS 10.0 统计软件包进行统计学分析,计数资料采用 χ^2 检验,$P<0.05$ 为差异具有统计学意义。

2 结果

化疗组 12 例患者发生 BPF,发生率为 8.70%;未化疗组 2 例患者发生 BPF 发生率为 1.85%,2 组比较差异有统计学意义($P>0.05$)。14 例全肺切除术后支气管胸膜晚期瘘患者通过保守治疗(抗感染、胸腔闭式引流)后,12 例患者痊愈,另外 2 例患者仍在随访中。

3 讨论

有文献报道,肺切除术后支气管胸膜瘘的发生率为 2%[8-9],但病死率可高达 40%[10-12]。肺切除术后支气管胸膜瘘的发生原因主要有:①患者既往有糖尿病病史、结核病史以及低蛋白血症;②术前感染[13-14];③术中支气管癌组织残留;④术中残端过长,分泌物潴留引起局部感染;⑤术中支气管残端缝合不牢或结扎线脱落[15];⑥术后呼吸机辅助通气时间过长;⑦术后胸腔引流不畅、胸腔积液,引起感染导致残端部分裂开。从肺切除术后支气管胸膜瘘的发生原因可以看出,无论术前、术中还是术后,感染都是引发 BPF 的一个主要原因。而术后辅助化疗同样因为其易造成支气管水肿、瘢痕化以及支气管动脉硬化、闭塞而诱发感染,成为肺切除术后发生支气管胸膜晚期瘘的一个高危因素。本组术后 1 个月内行辅助化疗患者 BPF 发生率显著高于无化疗组患者,说明术后行辅助化疗会增加患者支气管胸膜晚期瘘的发生率。

为了避免感染,在术后行辅助化疗时,需要注意以下问题[16]:①辅助化疗前,一定要积极完善相关检查,确定患者是否存在肺部感染。若存在,依据药敏结果积极采取抗感染治疗,待感染完全控制后再考虑行化疗。②在化疗过程中,注意观察患者的化疗反应,注意血常规结果,若出现发热、咳嗽、咳痰症状及血象偏高时,应当立即停止化疗,待感染控制后再考虑继续行化疗。③化疗完成后一定要观察患者有无肺部感染症状,及时复查血常规,若存在感染,一定要积极控制。

化疗是肺癌治疗方法之一,对于行肺癌根治术后病理分期为 Ⅱa 期以上患者,尽量行术后辅助化疗。对于存在高危因素的 Ⅰ 期肺癌患者,亦应在手术结束 1 个月内行辅助化疗,化疗方案选择以含铂类双药方案[17]。但是有些患者在行肺癌根治术后,身体较差,难以接受以铂类为基础的高剂量强化疗。另外,对于术后患者营养情况较差,术中断离支气管不满意,术后出现肺部感染,按照指南行术后辅助化疗,可能导致术后 BPF 发生率增加,出现严重脓胸、胸廓畸形、肺部感染等并发症,严重时有生命危险,所以对于此类患者,行术后辅助化疗时应慎重。

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重症急性胰腺炎患者预后与血浆白蛋白变化相关性分析

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[摘 要] **目的** 探讨重症急性胰腺炎患者预后效果与血浆白蛋白水平变化之间的相关性。**方法** 选取 2008 年 9 月至 2013 年 10 月收治的 235 例重症胰腺炎患者为研究对象,根据患者的预后状况分为 2 组,其中病情好转、至今仍生存的患者共 143 例,设为存活组,病情恶化而死亡的患者共 92 例,设为死亡组。回顾性分析 2 组患者的基本情况以及血浆白蛋白水平变异等,采取 logistic 回归分析血浆白蛋白变化与重症急性胰腺炎死亡的相关性。**结果** 存活组患者年龄、APCHE Ⅱ 评分、Ranson 评分、SOFA 评分、总住院时间、机械通气时间、连续肾脏替代治疗、住院期间血浆白蛋白总体水平、24 h 内血浆白蛋白下降值以及白蛋白变异度与死亡组比较,差异具有统计学意义($P<0.05$);ROC 曲线提示 24 h 内白蛋白下降值预测患者死亡的最佳截断值是 4.24 g/L;蛋白变异度预测死亡的最佳截断值是 13.6%;logistic 回归分析结果表明重症急性胰腺炎死亡的主要危险因素为 24 h 内白蛋白下降值、24 h 内血浆白蛋白变异度、血浆白蛋白总体水平以及 APACHE Ⅱ 评分。**结论** 血浆白蛋白变化能够反映重症急性胰腺炎的疾病严重程度,24 h 内血浆白蛋白急剧下降可作为患者死亡的危险因素之一。

[关键词] 重症胰腺炎;预后;血浆白蛋白

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Correlation between prognosis of patients with severe acute pancreatitis and changes of plasma albumin

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Abstract: Objective To investigate the correlation between prognosis of patients with severe acute pancreatitis and changes of plasma albumin. **Methods** A total of 235 patients with severe pancreatitis who were admitted into hospital from September 2008 to October 2013 were selected as research object. According to the prognosis, they were divided into the survival group (143 cases who were recovered and still alive) and the death group (92 cases who died of the deterioration of diseases). Retrospectively analyzed the basic situation of the patients and the changes of serum albumin levels in the two groups. And the correlation between prognosis of patients with severe acute pancreatitis and changes of plasma albumin were evaluated by the logistic regression analysis. **Results** Compared with the death group, there were significant differences ($P<0.05$) in terms of age, APCHE Ⅱ score, Ranson score, SOFA score, length of hospital stay, duration of mechanical ventilation, continuous renal replacement therapy, average serum albumin level, decrease of serum albumin within 24 hours, and variation of serum albumin. And ROC curves suggested the best cutoff value of decrease of serum albumin within 24 hours to predict death in patients within 24 hours was 4.24 g/L, and the best cutoff value of variation of serum albumin to predict death was 13.6%. Logistic regression analysis showed that the major risk factors of death in severe acute pancreatitis were decrease of serum albumin within 24 hours, variation of serum albumin within 24 hours, average serum albumin level, and the APCHE Ⅱ score. **Conclusion** Changes in plasma albumin can reflect the severity of severe acute pancreatitis, and the sharp decrease of serum albumin within 24 hours can be used as a risk factor for death.

Keywords: severe pancreatitis; prognosis; plasma albumin

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