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## 复发性胆源性胰腺炎的临床特征及危险因素分析 \*

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**摘要 目的:**研究复发性胆源性胰腺炎(RGP)的临床特征及危险因素。**方法:**选择从2012年1月至2017年1月在本院接受治疗的80例RGP患者作为观察组,另选同期在本院接受治疗的胆源性胰腺炎(GP)患者86例作为对照组,分析观察组患者的临床特征及两组患者的致病因素,采用Logistic回归分析RGP的危险因素。**结果:**在RGP患者的临床特征中,复发次数均较多,平均达到(3.21±0.23)次。发病诱因则主要是胆囊结石、胆总管结石及高脂血症;临床症状主要是黄疸、呕吐、恶心、腹痛、腹胀;并发症主要包括胆管炎、胰腺肿胀以及腹水;临床体征主要有出血征象、腹肌紧张、腹部压痛等。观察组的男性、重度胰腺炎、合并胆总管结石、胆胰管开口狭窄、有高脂血症、手术治疗的患者致病率分别高于对照组,并且观察组急性生理与慢性健康评分(APACHE-II)明显高于对照组,差异均有统计学意义( $P<0.05$ )。由多因素Logistic回归分析可知,导致RGP的危险因素有男性、高APACHE-II评分、重度胰腺炎、合并胆总管结石、胆胰管开口狭窄、有高脂血症以及手术治疗。**结论:**RGP患者的临床特征具有一定的规律性,其中男性、高APACHE-II评分、重度胰腺炎、合并胆总管结石、胆胰管开口狭窄、有高脂血症以及手术治疗是导致RGP发生的危险因素。

**关键词:**复发性;胆源性;胰腺炎;临床特征;危险因素

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## Analysis of Clinical Features and Risk Factors of Patients with Recurrent Gallstone Pancreatitis\*

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**ABSTRACT Objective:** To study the clinical features and risk factors of recurrent gallstone pancreatitis (RGP). **Methods:** 80 patients with RGP gallstone pancreatitis (GP) treated in our hospital from January 2012 to January 2017 were selected as observation group. At the same period, 86 patients with gallstone pancreatitis (GP) treated in our hospital were selected as control group. The clinical characteristics of the patients in the observation group and the pathogenic factors of the two groups were analyzed. Logistic regression analysis was used to analyze the risk factors of RGP. **Results:** In the clinical features of RGP patients, the recurrence times were more, average reaching (3.21±0.23) times. The main causes of the disease were the gallbladder stones and common bile duct stones and hyperlipidemia. The main clinical symptoms are jaundice, vomiting, nausea, abdominal pain and abdominal distension. The main complications included cholangitis, pancreatic abscess and ascites. The main clinical signs are bleeding signs, abdominal muscle tension, abdominal tenderness, and so on. The pathogenicity rate of male, severe pancreatitis, common bile duct stones, bile duct stenosis, hyperlipidemia, the surgical treatment in the observation group were significantly higher than the control group respectively, and the scores of APACHE-II in the observation group were significantly higher than that in the control group, the differences were statistically significant ( $P<0.05$ ). The analysis of multiple factor Logistic regression analysis showed that, the risk factors of RGP were male, high APACHE-II scores, severe pancreatitis, common bile duct stones, bile duct stricture, hyperlipidemia and the surgical treatment. **Conclusion:** The clinical features of RGP patients have certain regularity, and the risk factors for RGP are male, high APACHE-II scores, severe pancreatitis, common bile duct stones, bile duct stricture, hyperlipidemia and surgical treatment.

**Key words:** Recurrence; Gallstone; Pancreatitis; Clinical features; Risk factors

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### 前言

胆源性胰腺炎(gallstone pancreatitis, GP)在消化科临幊上

十分常见,主要是由胆道疾病而引起的一类胰腺炎症型障碍疾病。据统计,GP在急性胰腺炎患者中大约占到70%以上<sup>[1,2]</sup>。目前GP患者的治疗方式主要是通过保守治疗后,待症状有所缓

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解时再实施胆囊切除术或胆总管探查术等,尽可能地避免胰腺炎再次复发<sup>[3,4]</sup>。然而,临幊上仍有部分患者出现GP的反复性发作,最终形成复发性胆源性胰腺炎(recurrent gallstone pancreatitis,RGP)<sup>[5,6]</sup>,RGP患者的主要症状有恶心呕吐、腹胀、黄疸、发热,严重者甚至会出现休克、呼吸衰竭,引起多种并发症,当胆胰管开口狭窄或胆道阻塞时,胆汁在内压较大的状态下逆流,损坏胰腺组织,增大胰酶活性,引起胰腺局部炎症反应,若不给予及时治疗,则可能进一步地损害多个脏器的正常功能,对患者的生命健康造成严重的威胁<sup>[7,8]</sup>。因此,详细而深入地研究RGP患者的临幊情况刻不容缓,加之目前在临幊上针对RGP的研究报道涵盖面较小,本文通过分析RGP的临幊特征及危险因素,旨在更好地辅助临幊诊治过程,现报道如下。

## 1 资料和方法

### 1.1 临床资料

选择从2012年1月至2017年1月在本院接受治疗的80例RGP患者作为观察组,另选同期在本院接受治疗的GP患者86例作为对照组,纳入标准:(1)符合中华医学会外科学分会胰腺组颁布的RGP或GP的相关诊断标准<sup>[9]</sup>;(2)通过B超、CT及胰胆管造影等影像学手段确诊;(3)年龄>30岁;(4)患者或家属知情同意并签署知情同意书。排除标准:(1)病历数据资料缺失者;(2)合并严重心、脑、肾功能障碍者;(3)其他类型的肝胆疾病者;(4)恶性肿瘤者;(5)精神疾患无法配合研究者。其中观察组男58例,女22例;年龄33~82岁,平均(44.67±9.52)岁;炎症严重程度分级:B级23例、C级27例、D级19例、E级11例,对照组男45例,女41例;年龄34~80岁,平均(42.81±7.06)岁;炎症严重程度分级:B级24例、C级30例、D级22例、E级10例。本次研究已经获得医院伦理委员会的批准,并允许实施。

### 1.2 研究方法

查阅整理所有患者的病历资料,并通过电话、短信、门诊复

查等方式进行密切随访,统计并记录患者的以下数据信息:(1)性别;(2)年龄;(3)临幊表现;(4)观察组患者的复发次数;(5)临幊体征;(6)并发症情况;(7)发病诱因;(8)急性生理与慢性健康状况(acute physiology and chronic health evaluation-II,APACHE-II)评分;(9)胰腺炎类型;(10)合并结石的位置;(11)胆胰管开口情况;(12)高脂血症情况;(13)是否进行了手术治疗。

### 1.3 统计学方法

通过SPSS21.0统计软件分析,APACHE-II评分等计量资料以(x±s)表示,实施t检验,胆胰管开口等计数资料以率表示,实施x<sup>2</sup>检验,危险因素的分析应用Logistic回归分析进行处理,检验标准设置为α=0.05。

## 2 结果

### 2.1 观察组患者的临幊特征分析

80例RGP患者的复发次数为1~8次,平均次数为(3.21±0.23)次。发病诱因:胆囊结石28例,胆总管结石30例,高脂血症12例,胆道炎症5例,饮酒过量3例,胆道蛔虫2例。临幊症状:黄疸79例,呕吐、恶心75例,腹痛78例,腹胀72例。并发症:呼吸/循环/心肾功能性衰竭3例,胰腺脓肿9例,胆管炎12例,败血症2例,腹水21例,肠梗阻4例。临幊体征:有出血征象38例,休克16例,腹肌紧张77例,腹部压痛75例。

### 2.2 两组患者的致病单因素分析

观察组的男性、重度胰腺炎、合并胆总管结石、胆胰管开口狭窄、有高脂血症、手术治疗的患者致病率分别高于对照组,并且观察组APACHE-II评分明显高于对照组,差异均有统计学意义(P<0.05),见表1。

### 2.3 导致RGP的危险因素分析

由多因素Logistic回归分析可知,导致RGP的危险因素有男性、高APACHE-II评分、重度胰腺炎、合并胆总管结石、胆胰管开口狭窄、有高脂血症以及手术治疗,见表2。

表1 两组患者的致病单因素分析

Table 1 Analysis of pathogenetic factors in the two groups of patients

Items	Observation group(n=80)	Control group(n=86)	$\chi^2$	P
Male/female	58/22	45/41	7.163	0.007
Age (years)	44.67±9.52	42.81±7.06	1.436	0.153
APACHE-II (scores)	12.75±4.12	9.83±4.81	4.186	0.000
Type of pancreatitis				
Mild and moderate	32(40.00)	56(65.12)	10.496	0.001
Severe	48(60.00)	30(34.88)		
Position of combined calculi				
Cholecystolithiasis	28(35.00)	42(48.84)	3.254	0.071
Choledocholithiasis	30(37.50)	20(23.26)	3.995	0.046
Biliary pancreatic duct opening				
Narrow	17(21.25)	6(6.98)	7.074	0.008
Normal	63(78.75)	80(93.02)		
Hyperlipidemia				
Yes	12(15.00)	4(4.65)	5.096	0.024
No	68(85.00)	82(95.35)		
Surgical treatment				
Yes	56(70.00)	36(41.86)	13.283	0.000
No	24(30.00)	50(58.14)		

表 2 导致 RGP 的危险因素分析  
Table 2 Analysis of the risk factors for RGP

Risk factors	Regression coefficient	Standard error	P	OR	95%CI
Male	4.483	3.271	0.000	2.817	1.021-11.283
High APACHE-II scores	5.436	4.089	0.006	2.086	1.247-12.106
Severe pancreatitis	5.279	3.255	0.032	1.937	1.004-9.247
Combined choledocholithiasis	6.133	2.387	0.000	3.684	2.033-10.672
Biliary pancreatic duct opening narrow	4.429	2.821	0.001	2.696	1.544-8.287
Hyperlipidemia	3.987	3.064	0.007	1.859	1.128-7.261
Surgical treatment	4.274	4.121	0.000	4.932	1.066-14.284

### 3 讨论

临幊上,GP主要是指人体胆道经过多类炎症因子作用后,损伤了胰腺组织,严重者可引发急性肾功能衰竭、循环功能衰竭、胰性脑病等并发症<sup>[10-12]</sup>。目前对于GP的发病机制还尚未有统一说法,由于其病因复杂、根治性治疗难度大,甚至可能进一步转化成RGP而危害患者的身体健康<sup>[13,14]</sup>。由于RGP有多种发病诱因及临床特点,从而给患者诊治带来巨大难题,并且根据不同的种族、地区、生活习惯等因素,RGP呈现不同的发病率,在我国,RGP发病率大约在12.35%-32.68%,所以越来越多的专业人士开始关注RGP及其发病机制,有报道指出,RGP的发病机制和初发GP基本类似,均以胆胰二者的“共同通道”理论作为基础<sup>[15]</sup>。其中结石和狭窄以及逆行收缩等情况产生的共同通道梗阻可能决定了胰腺炎的形成。加之临幊上RGP的发生率较高,大约在全部GP患者群体中占20%-30%,因此,对RGP进行深入探讨并分析RGP的临床症状及体征,了解其发病诱因,可改善不良反应的发生,降低RGP发生的概率,从而改善预后<sup>[16]</sup>。本文通过分析RGP患者的临床特征及相关危险因素,旨在为该病的治疗和预防提供参考。

本研究结果显示,在RGP患者的临幊特征中,复发次数均较多,平均达到(3.21±0.23)次。发病诱因则主要是胆囊结石、胆总管结石及高脂血症;临床症状主要是黄疸、呕吐、恶心、腹痛、腹胀;并发症主要包括胆管炎、胰腺肿胀以及腹水;临床体征主要有出血征象、腹肌紧张、腹部压痛等。这符合邵庆亮<sup>[17]</sup>的报道结果,提示RGP的临幊特征具有一定的规律性,可为临幊诊治提供一些参考。原因可能是因为上述临幊特征涉及的范围均与RGP患者的发病机制存在内在联系<sup>[18,19]</sup>。同时,本研究显示,观察组的男性、重度胰腺炎、合并胆总管结石、胆胰管开口狭窄、有高脂血症、手术治疗的患者致病率分别高于对照组,并且观察组APACHE-II评分明显高于对照组( $P<0.05$ ),并且经过多因素Logistic回归分析后发现,导致RGP的危险因素有男性、高APACHE-II评分、重度胰腺炎、合并胆总管结石、胆胰管开口狭窄、有高脂血症以及手术治疗,此结果符合了田青等人<sup>[20,21]</sup>的报道,这也提示了上述因素与RGP的发病之间具有较大联系。原因可能与生活水平提高及饮食习惯的改变相关,其中男性患者暴饮暴食的情况相对较为严重,且长期的高脂饮食易引起高脂血症发生的概率,高脂血症提高血液黏滞度,加快三酰甘油的增长,甘油三酯会在血管内、肝脏、胰腺等组织中堆

积,分解大量的脂肪酸,并且毒性很强,引起动脉粥样硬化、冠心病、脂肪肝、RGP等疾病。如此循环往复,恶性循环,所以患者可通过减轻体重、多食用水果蔬菜、加强运动来降低血三酰甘油水平,必要时在医生的指导下服用降脂药物,减少RGP发生的概率<sup>[22,23]</sup>。其中胆总管结石患者可使自身胰腺的微循环障碍和胰蛋白酶原被激活,且甘油三酯形成的分解产物可能会直接损伤患者的胰腺腺泡细胞,进而可能导致胰腺炎或RGP,所以降脂及改善胆道情况对于RGP患者具有积极意义<sup>[24,25]</sup>。而高APACHE-II评分和重度胰腺炎患者可能会引起胰腺纤维化,致使胰管和胆胰管的开口发生程度各异的狭窄症状,胆胰管的开口狭窄自身即为GP的重要病因,造成十二指肠乳头水肿、炎症形成,可能由此引起慢性胰腺炎并且恶性循环,进一步增加复发率,最后发展成RGP。张桐硕等人<sup>[26,27]</sup>的报道指出,对于已经接受胆囊切除等手术治疗的GP患者,其出现胆总管结石的复发通常是导致RGP的重要病因,和本研究的结论基本一致。这在赵越等人<sup>[28-30]</sup>的报道中也有类似的结论可加以证实。

综上所述,RGP患者的复发次数较多,并发症主要有胆管炎、胰腺肿胀及腹水,发病诱因主要有胆囊结石、胆总管结石及高脂血症,导致RGP的危险因素有男性、高APACHE-II评分、重度胰腺炎、合并胆总管结石、胆胰管开口狭窄、有高脂血症以及手术治疗。

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