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头孢曲松治疗急性胰腺炎的临床效果及对患者血清炎症因子的影响 *

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摘要 目的：探讨头孢曲松联合质子泵抑制剂对急性胰腺炎患者血清 IL-6，C 反应蛋白及降钙素原的影响及及临床疗效。**方法**：收集我院就诊的 118 例急性胰腺炎患者，随机分为实验组和对照组，每组 59 例。对照组患者给予奥美拉唑治疗，实验组患者在对照组基础上给予头孢曲松钠治疗。观察并比较两组患者治疗前后血清 C 反应蛋白（CRP）、白介素 -6（IL-6）、降钙素原（PCT）水平变化及临床疗效。**结果**：与治疗前相比，治疗后两组患者血清 CRP，IL-6 及 PCT 水平均下降，差异具有统计学意义（P<0.05）；与对照组相比，实验组患者 CRP，IL-6 及 PCT 水平较低，差异具有统计学意义（P<0.05）；与对照组相比，实验组患者临床治疗有效率较高，差异具有统计学意义（P<0.05）。**结论**：头孢曲松联合质子泵抑制剂能够降低急性胰腺炎患者血清 CRP、IL-6、PCT 水平，临床疗效较好。

关键词：头孢曲松；奥美拉唑；急性胰腺炎；白介素 -6；C 反应蛋白；降钙素原

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Clinical Effect of Ceftriaxone and Proton Pump Inhibitor on the Treatment of the Acute Pancreatitis*

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ABSTRACT Objective: To investigate the effect of ceftriaxone combined with proton pump inhibitor on the serum levels of IL-6, C reactive protein and calcitonin in patients with acute pancreatitis and its clinical curative effect. **Methods:** 118 cases with the acute pancreatitis who were treated in our hospital were selected and randomly divided into the experimental group and the control group, with 59 cases in each group. The patients in the control group were treated with omeprazole, while the patients in the experimental group were treated with ceftriaxone on the basis of the control group. Then the serum levels of C reactive protein (CRP), interleukin -6 (IL-6) and procalcitonin (PCT) and the clinical effective rate in the two groups were observed and compared before and after the treatment. **Results:** Compared with before treatment, the serum levels of CRP, IL-6 and PCT decreased in the two groups after the treatment, and the differences were statistically significant (P<0.05); Compared with the control group, the serum levels of CRP, IL-6 and PCT in the experimental group were lower after the treatment, and the differences were statistically significant (P<0.05); Compared with the control group, the clinical effective rate of the experimental group was higher, and the difference was statistically significant (P<0.05). **Conclusion:** Ceftriaxone combined with proton pump inhibitors can reduce the serum levels of CRP, IL-6 and PCT in patients with acute pancreatitis, with better clinical curative effect.

Key words: Ceftriaxone; Omeprazole; Acute pancreatitis; Interleukin -6; C reactive protein; Procalcitonin

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前言

急性胰腺炎（acute pancreatitis，AP）临床发病急骤，病情发展迅速，死亡率高[1]。胰管阻塞、胆道疾病、饮酒过量、暴饮暴食、内分泌障碍以及药物等是急性胰腺炎发生的主要原因[2]。急性胰腺炎患者的胰腺酶被非正常激活，导致胰腺发生自身消化、水肿以及出血等[3]。病情严重的还可能发生全身感染，甚至发生多器官衰竭。因此对于患者进行及时有效的治疗，减少全身炎症，预防感染。临床对于急性胰腺炎的治疗较多采用头孢菌素类药物[4]。其抗菌力强，对于多种细菌均有较好的效果，且能够穿透人体组织，对于肾功较差的患者也能够产生较好的疗效，不会对肾脏产生毒性。质子泵抑制剂通过抑制胃黏膜壁细胞膜的 H^+-K^+-ATP 酶的活性，阻止 H^+ 向胃腔内的运转增加，减少胃酸分泌；同时可以增加胃黏膜的血流量，改善循环[5]。泮托拉唑、兰索拉唑、奥美拉唑等都是临床常用的质子泵抑制剂，具有选择性高，药效稳定，临床起效快等特点[6]。我们的实验通过观察治疗前后急性胰腺炎患者 IL-6，CRP，PCT 水平变化，探讨头孢曲松联合质子泵抑制剂对急性胰腺炎的治疗作用，现报道如下。

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1 资料与方法

1.1 临床资料

收集 2015 年 1 月 ~2016 年 1 月于我院就诊的 118 例急性胰腺炎患者，随机分为两组，每组 59 例。实验组组内男性 30 例，女性 29 例，患者平均年龄（53.13± 0.84）岁；对照组内男性 31 例，女性 28 例，患者平均年龄（52.73± 0.77）岁。两组患者一般资料相比有可比性（P>0.05）。所有患者均符合《中国急性胰腺炎诊治指南》中关于急性胰腺炎的诊断标准，并经实验室检查确诊；所有患者均为首次发作的急性胰腺炎患者；发病在 24 小时之内；所有患者均无重要器官重大疾病；排除妊娠以及哺乳期女性；排除有恶性肿瘤的患者；排除实验前已使用过实验药物的患者；所有患者均同意进行实验。

1.2 方法

对照组患者给予奥美拉唑（国药准字 H20083922 生产企业：辰欣药业股份有限公司）40 mg，1 次 /d，静脉滴注 12 h；实验组患者在对照组患者基础上给予头孢曲松钠（国药准字 H20073252 生产企业：西南药业股份有限公司）2 g，1 次 /d，静脉滴注，治疗均连续 7 d。治疗期间根据患者情况及时调整药量。

1.3 血清 CRP，IL-6 及 PCT 水平检测

分别于治疗前后采集患者静脉血 3 mL，采用散射比浊法检测 C 反应蛋白水平；采用酶联免疫吸附法（ELISA）检测白介素 -6（IL-6）水平；应用全自动生化分析仪检测降钙素原（PCT）水平。

1.4 疗效评价

治疗后对患者的临床疗效进行评价，患者临床症状完全消失，经实验室检查，血清淀粉酶、脂肪酶以及白细胞等相关指标恢复正常为显效；患者临床症状基本消失，相关生化指标明显好转为有效；患者治疗后临床症状未有明显好转甚至加重，实验室检查相关生化指标未见改善为无效。

1.5 统计学分析

采用 SPSS 19.0 统计软件，计量数据以均数± 标准差（$\bar{x}$± s）表示，采用 t 检验；计数资料采用%表示，采用卡方检验。以 P<0.05 认为差异有统计学意义。

2 结果

2.1 两组患者治疗前后血清 C- 反应蛋白水平比较

治疗后，两组患者的的 CRP 水平与治疗前相比均下降（P<0.05）；与对照组相比，实验组患者血清 CRP 水平较低，差异均具有统计学意义（P<0.05），见表 1。

表 1 治疗前后患者血清 CRP 水平比较（μg/L，$\bar{x}$± s）

Table 1 Comparison of the serum levels of CRP between two groups before and after treatment（μg/L, $\bar{x}$± s）

Groups	Before treatment	After treatment
Experimental group	73.12± 10.01	42.19± 9.91*#
Control group	70.31± 12.17	55.38± 8.46*

Note: compared with before treatment, *P<0.05; compared with the control group after treatment, #P<0.05.

2.2 两组患者治疗前后血清白介素 -6（IL-6）水平比较

治疗后，两组患者血清 IL-6 水平与治疗前相比均下降（P<0.05）；与对照组相比，实验组患者血清 IL-6 水平较低，差异均具有统计学意义（P<0.05），见表 2。

表 2 患者治疗前后血清 IL-6 水平比较（ng/L，$\bar{x}$± s）

Table 2 Comparison of the serum levels of IL-6 between two groups before and after treatment(ng/L, $\bar{x}$± s)

Groups	Before treatment	After treatment
Experimental group	18.27± 4.29	10.22± 3.65*#
Control group	19.38± 4.05	14.89± 3.11*

Note: compared with before treatment, *P<0.05; compared with the control group after treatment, #P<0.05.

2.3 两组患者治疗前后血清降钙素原（PCT）水平比较

治疗后，两组患者血清 PCT 水平与治疗前相比均下降（P<0.05）；与对照组相比，实验组患者血清 PCT 水平较低，差异均具有统计学意义（P<0.05），见表 3。

表 3 患者治疗前后血清 PCT 水平比较（μg/L，$\bar{x}$± s）

Table 3 Comparison of the serum levels of PCT between two groups before and after treatment（μg/L, $\bar{x}$± s）

Groups	Before treatment	After treatment
Experimental group	4.73± 0.78	0.68± 0.31*#
Control group	4.49± 0.89	2.24± 0.54*

Note: compared with before treatment, *P<0.05; compared with the control group after treatment, #P<0.05.

2.4 两组患者临床疗效比较

实验组的治疗总有效率与对照组相比较高（P<0.05），见表4。

表 4 临床疗效比较（%，$\bar{x}$± s）

Table 4 Comparison of the clinical curative effect between the two groups(%, $\bar{x}$± s)

	Excellent	Effective	Invalid	Total effective rate
Experimental group	34（57.63）	23（38.98）	2（3.39）	57（96.61）*
Control group	20（33.90）	25（42.37）	14（23.73）	45（76.27）

Note: compared with the control group, *P<0.05.

3 讨论

急性胰腺炎是临床常见的急腹症类型，以胰腺局部以及全身的炎症为主要的临床表现，病情严重的患者可发生腹腔感染、胰腺坏死等严重并发症，甚至发生多器官衰竭[7]。急性胰腺炎一般分为单纯 / 间质水肿性和出血坏死性两大类，在不同病理阶段可累及胰腺以及周围、远处的器官和系统[8,9]。

急性胰腺炎的发病机制至今尚不完全清楚，研究认为蛋白

酶、磷脂酶 A2 以及多种炎症细胞因子共同作用的结果[10]。近年研究表明[11],炎症递质和细胞因子在急性胰腺炎的发生过程中起到了关键作用。白介素 -6(IL-6)的检测对于胰腺炎的敏感性以及特异性较高,IL-6 由多种细胞分泌的细胞因子, 参与炎症反应过程,是诱导肝脏合成急性期蛋白的关键介质[12-14]。已有研究证实,急性胰腺炎患者在其发病的早期,血清 IL-6 水平就会发生明显升高,其水平的升高能够加速炎症反应,加重器官的损伤[15]。有研究证实[16],IL-6 水平的高低与胰腺炎的严重程度相关。我们的实验结果表明,治疗后患者的 IL-6 水平均下降,实验组患者的 IL-6 水平较低。头孢菌素类药物胰腺炎的治疗具有较强的抗菌力, 因此本实验的实验组患者治疗后的 IL-6 的水平较低,证实质子泵抑制剂与头孢菌素联合使用的抗炎抗菌作用较好。

C 反应蛋白(CRP)是一种由多种细胞介导的急性时相蛋白,由肝细胞合成,在人体内以糖蛋白形式存在[17],参与了多种炎症反应。能够在炎症中诱导 IL-6 释放,相应 IL-6 水平的升高也能够促进肝脏合成 CRP,在正常人血中 CRP 的含量较低,当机体受到炎症和感染时,其水平明显升高[18];因此我们的实验结果表明,治疗后,患者血清 CRP 水平均降低,实验组患者的 CRP 水平较低。相关研究表明,在炎症的急性期,胰腺组织被破坏,胰酶入血导致 CRP 与 T 细胞结合,影响相应细胞的功能,CRP 水平也能够反映胰腺细胞损害的程度,可能是由于血管内皮细胞中的 CRP 能够诱导多种细胞因子促炎作用, 增强白细胞的吞噬作用[19]。头孢曲松为第三代头孢菌素,对于消灭多种大多数革兰阳性菌和阴性菌均有较好的疗效,因此本实验实验组患者的 CRP 水平较低,抗炎作用较好。

降钙素原(PCT)为降钙素的前体物质,可由细胞内蛋白水解酶将其水解为降钙素后发挥作用。在正常生理情况下,降钙素原有由甲状腺髓质细胞分泌,其水平较低;已有研究结果证实,当出现炎症、细菌感染以及其他病理情况下,体内多种器官组织如脾、肝、肺等以及细胞在刺激下产生降钙素原,其水平显著异常上升,而当患者病情得到控制时,降钙素原水平下降[20]。我们的实验结果表明,治疗后两组患者的降钙素原水平均下降,实验组患者降钙素原水平较低。证实患者的胰腺炎炎症水平已经得到控制,降钙素原水平下降,实验组患者由于采用两药联合使用,使患者的降钙素原水平明显下降,胰腺炎趋于康复。

综上,头孢曲松联合质子泵抑制剂能够降低急性胰腺炎患者血清 CRP、IL-6、PCT 水平,临床疗效较好。

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