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兰索拉唑联合奥曲肽治疗急性非静脉曲张性上消化道出血的临床效果及安全性分析

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摘要 目的:探讨兰索拉唑联合奥曲肽治疗急性非静脉曲张性上消化道出血的临床疗效以及安全性。**方法:**选取自 2014 年 1 月到 2017 年 1 月我院收治的急性非静脉曲张性上消化道出血患者 102 例,随机分为 A 组、B 组和 C 组,每组各 34 例。A 组使用兰索拉唑进行治疗,B 组使用奥曲肽进行治疗,C 组联合使用兰索拉唑和奥曲肽进行治疗。对比三组患者的临床疗效、止血时间、血压稳定时间、胃管引流量、胃液 PH 值以及不良反应的发生情况。**结果:**治疗后,C 组的显效率为 61.76%,显著高于 A 组和 B 组(均 $P < 0.05$);C 组的总有效率为 97.06%,显著高于 B 组($P < 0.05$);C 组的止血时间为 (15.37 ± 4.38) h,血压稳定时间为 (7.23 ± 1.18) h,胃管引流量为 (236.59 ± 29.81) mL,均显著少于 A 组和 B 组,而胃液 PH 值为 (5.91 ± 0.57) ,显著高于 A 组和 B 组(均 $P < 0.05$)。三组患者不良反应发生率的对比差异均没有统计学意义($P > 0.05$)。**结论:**兰索拉唑联合奥曲肽治疗急性非静脉曲张性上消化道出血可显著提高止血效果,临床疗效明显优于单用兰索拉唑或奥曲肽治疗,且安全性相当。

关键词:兰索拉唑;奥曲肽;急性非静脉曲张性上消化道出血

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Analysis of the Clinical Efficacy and Safety of Lansoprazole Combined with Octreotide in the Treatment of Acute Non Variceal Upper Gastrointestinal Bleeding

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ABSTRACT Objective: To analyze the clinical efficacy and safety of lansoprazole combined with octreotide in the treatment of acute non variceal upper gastrointestinal bleeding. **Methods:** 102 cases of patients with acute non-variceal upper gastrointestinal bleeding treated in our hospital from January 2014 to January 2017 were selected and randomly divided into group A, group B and group C, 34 cases in each group. Group A was treated with lansoprazole, group B was treated with octreotide, and group C was treated with lansoprazole and octreotide. The clinical efficacy, hemostasis time, blood pressure stability time, volume of gastric drainage, PH value of gastric fluid and incidence of adverse reactions were compared between the three groups. **Results:** After treatment, the apparent effective rate of group C was 61.76%, which was significantly higher than that of group A and group B ($P < 0.05$). The total effective rate of group C was 97.06%, which was significantly higher than that of group B ($P < 0.05$). The hemostasis time of group C was (15.37 ± 4.38) h, the blood pressure stability time was (7.23 ± 1.18) h, the volume of gastric drainage was (236.59 ± 29.81) mL, which were significantly lower than those of group A and group B. The PH value of gastric fluid of group C was (5.91 ± 0.57) , which was significantly higher than that of group A and group B ($P < 0.05$). The incidence of adverse reactions of three groups showed no statistically significant difference ($P > 0.05$). **Conclusion:** Lansoprazole combined with octreotide could significantly improve the hemostatic effect in the treatment of acute non variceal upper gastrointestinal bleeding. The clinical effect is much better than the single use of lansoprazole or octreotide, and the safety is quite.

Key words: Lansoprazole; Octreotide; Acute non variceal bleeding of upper digestive

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前言

上消化道出血是发生在屈氏韧带上方的消化道血管破裂出血的疾病,上消化道溃疡、胃黏膜损伤等疾病均可引起上消化道出血。急性上消化道出血以腹痛、呕血、黑便等为主要临床表现,出血量较大,如果不能及时止血,可出现血循环衰竭、失血性休克甚至危及患者的生命。内科保守治疗是急性非静脉曲张性上消化道出血的主要治疗措施,而快速控制出血、维持血容量的稳定是评价临床疗效的重要指标,也是降低本病死亡率的关键^[1]。

奥曲肽是生长抑素类似物,可收缩内脏血管,减少内脏血流,是治疗上消化道出血的常用药物^[2,3]。兰索拉唑为质子泵抑制剂,可抑制胃酸的分泌,提高胃内 pH 值,而促进胃黏膜损伤的修复,恢复胃黏膜的屏障功能^[4,5]。本研究主要探讨了兰索拉唑联合奥曲肽治疗急性非静脉曲张性上消化道出血的临床疗效以及安全性,现报道如下。

1 资料与方法

1.1 一般资料

选取 2014 年 1 月到 2017 年 1 月收治的急性非静脉曲张性上消化道出血患者 102 例,随机分为 A 组、B 组和 C 组,每组各 34 例。A 组中,男性有 22 例,女性有 12 例,患者年龄 45-60 岁,平均年龄为(53.08± 6.38)岁,14 例为胃溃疡,11 例为十二指肠溃疡,9 例为出血性胃炎,病情严重程度分级^[6]10 例为轻度消化道出血,17 例为中度消化道出血,7 例为重度消化道出血;B 组中,男性有 21 例,女性有 13 例,患者年龄 43-62 岁,平均年龄为(54.12± 6.19)岁,15 例为胃溃疡,12 例为十二指肠溃疡,7 例为出血性胃炎,病情严重程度分级 10 例为轻度消化道出血,19 例为中度消化道出血,5 例为重度消化道出血;C 组中,男性有 25 例,女性有 9 例,患者年龄 42-61 岁,平均年龄为(53.61± 6.05)岁,16 例为胃溃疡,11 例为十二指肠溃疡,7 例为出血性胃炎,病情严重程度分级 9 例为轻度消化道出血,17 例为中度消化道出血,8 例为重度消化道出血。三组患者一般资料的对比差异均没有统计学意义(均 $P>0.05$),具有可比性。

1.2 纳入和排除标准

参照《中华内科杂志》编委会、《中华消化杂志》编委会、《中华消化内镜杂志》编委会发布的《急性非静脉曲张性上消化道出血诊治指南(2009)》^[6]进行诊断。根据患者呕吐、黑便、腹痛等

临床症状,结合电子胃镜检查结果,明确急性非静脉曲张性上消化道出血的临床诊断。同时排除静脉曲张性消化道出血、消化道肿瘤出血的患者;排除出现严重循环衰竭,需要手术治疗的;排除合并肝肾功能衰竭等其他严重器质性疾病的患者;排除有胃切除术史的患者;排除对本研究所用药物过敏的患者。

1.3 治疗方案

所有患者均给予补液、营养支持、应用抗生素预防感染、维持水电解质和酸碱平衡等基础治疗措施,必要时给予输血补充血容量。A 组在接受基础治疗的同时,加用注射用兰索拉唑(江苏奥赛康药业股份有限公司生产)30 mg,配 0.9%氯化钠注射液 100 mL 静脉滴注,每天 2 次;B 组在接受基础治疗的同时,加用醋酸奥曲肽注射液(Novartis Pharma Stein AG, Switzerland 生产),首剂静脉推注醋酸奥曲肽注射液 0.1 mg,随后采用醋酸奥曲肽注射液 0.3 mg,配 0.9%氯化钠注射液至 50 mL 静脉泵入;C 组在接受基础治疗的同时,联合使用注射用兰索拉唑和醋酸奥曲肽注射液进行治疗。兰索拉唑和奥曲肽的使用方法分别与 A 组和 B 组的使用方法相同。

1.4 疗效评价标准

显效:用药有 24 小时内出血停止;有效:用药后 24-48 小时出血停止;无效:用药后超过 48 小时仍未停止出血。出血停止的判断标准为:患者呕血、便血症状消失,胃管未抽出血性胃液;患者血压、脉搏恢复正常,复查血常规提示红细胞计数和血红蛋白水平平均趋于正常;电子胃镜提示无活动性出血^[7]。

1.5 观察指标

对比三组患者的临床疗效、止血时间、血压稳定时间、胃管引流量、胃液 pH 值以及不良反应的发生情况。

1.6 统计学分析

采用 SPSS 17.0 进行统计学分析,计量资料采用均数± 标准差($\bar{x} \pm s$)进行表示,组间比较采用 t 检验,计数资料的比较采用卡方检验,以 $P<0.05$ 表示差异具有统计学意义。

2 结果

2.1 三组患者临床疗效的对比

治疗后,C 组的显效率为 61.76%,显著高于 A 组和 B 组(均 $P<0.05$);C 组的总有效率为 97.06%,显著高于 B 组($P<0.05$)。见表 1。

表 1 三组患者临床疗效的对比[例(%)]

Table 1 Comparison of the clinical efficacy among three groups [n(%)]

Groups	N	Apparent effective	Effective	Ineffective	Total effective rate
Group A	34	11(32.35)	18(52.94)	5(14.71)	85.29
Group B	34	7(20.59)	19(55.88)	8(23.53)	76.74
Group C	34	21(61.76)ab	13(38.24)	1(2.94)	97.06c

Note: Compared with the group A, ^a $\chi^2=5.903$, ^a $P=0.015$;和 B 组对比, ^b $\chi^2=11.900$, ^b $P=0.001$, ^c $\chi^2=4.610$, ^c $P=0.032$.

2.2 三组各项临床指标的对比

C 组的止血时间为 (15.37± 4.38) h, 血压稳定时间为 (7.23± 1.18) h, 胃管引流量为(236.59± 29.81) mL,均显著少于

A 组和 B 组,而胃液 PH 值为(5.91± 0.57),显著高于 A 组和 B 组(均 $P<0.05$)。见表 2。

表 2 三组各项临床指标的对比($\bar{x} \pm s$)
Table 2 Comparison of the clinical indexes among three groups ($\bar{x} \pm s$)

Groups	N	Hemostasis time(h)	Blood pressure stability time(h)	Volume of gastric drainage(mL)	pH value of gastric fluid
Group A	34	21.58 $\pm$ 6.79	10.05 $\pm$ 1.64	296.03 $\pm$ 31.57	5.06 $\pm$ 0.71
Group B	34	25.61 $\pm$ 6.32	11.91 $\pm$ 1.81	331.62 $\pm$ 39.73	4.49 $\pm$ 0.62
Group C	34	5.37 $\pm$ 4.38 ^{ac}	7.23 $\pm$ 1.18 ^{bf}	236.59 $\pm$ 29.81 ^{ce}	5.91 $\pm$ 0.57 ^{dh}

Note: Compared with the group A, ^at=3.843, ^aP=0.001, ^bt=6.979, ^bP=0.000, ^ct=6.845, ^cP=0.000, ^dt=4.668, ^dP=0.000; Compared with the group B, ^et=6.659, ^eP=0.000, ^ft=10.830, ^fP=0.000, ^gt=9.566, ^gP=0.000, ^ht=8.430, ^hP=0.000.

2.3 三组患者不良反应发生情况的对比

三组患者常见的不良反应有胃肠道反应、头晕头痛、注射

部位疼痛等, 不良反应发生率的对比差异均没有统计学意义(P>0.05)。见表 3。

表 3 三组不良反应发生情况的对比[例(%)]
Table 3 Comparison of the incidence of adverse reactions among three groups [n (%)]

Groups	N	Gastrointestinal reaction	Injection site pain	Dizziness and headache	Total incidence rate
Group A	34	2(5.88)	0(0.00)	1(2.94)	3(8.82)
Group B	34	1(2.94)	1(2.94)	0(0.00)	2(5.88)
Group C	34	2(5.88)	1(2.94)	1(2.94)	4(11.76)

3 讨论

十二指肠溃疡、急性胃黏膜损伤等非静脉曲张性上消化道出血是上消化道出血的常见病因,也是常见的消化科急症。本病发病前可无任何前驱症状,临床以黑便、呕血、腹痛为主要症状。本病的严重程度与患者的出血量密切相关,出血量大可引起循环衰竭、休克乃至死亡^[8,9]。迅速有效止血,促进出血部位黏膜的修复是本病主要的治疗目标,而内科保守治疗仍是目前临床的首选治疗方案^[10,11]。

由于胃内呈酸性环境,pH 值过低可影响血小板的聚集功能,不利于血栓的形成,影响止血的效果^[12,13]。同时,在酸性环境下,胃蛋白酶的活性增强,对形成的血栓有溶解、破坏的作用而引起再次的出血^[14,17]。兰索拉唑在胃内酸性环境下,在胃壁细胞小管内转化为次磺酰胺形式,并与 H⁺/K⁺-ATP 酶结合而致其失活,从而影响胃壁细胞 H⁺-K⁺ 的交换,抑制胃酸的分泌,进而提高胃内的 pH 值^[18-21]。本研究的结果显示 A 组和 C 组的胃液 pH 值均高于 B 组。胃内 pH 值水平的升高可增强血小板的聚集功能,同时抑制胃蛋白酶的活性,减少其对血栓的破坏,从而提高止血的效果。奥曲肽属于生长抑素类似物,可使内脏血管平滑肌收缩,减少内脏的血流量,有利于破损血管的修复。同时,奥曲肽可抑制胃酸和胃蛋白酶的分泌,有利于血小板的聚集和血栓的形成^[22-25]。在本研究中,单独应用兰索拉唑或者奥曲肽治疗急性非静脉曲张性上消化道出血的显效率均显著低于兰索拉唑和奥曲肽的联合使用。这主要是因为奥曲肽抑制胃酸分泌的作用较弱,和兰索拉唑联合使用可更有效地减少胃酸分泌,提高止血的效果,同时也有利于胃黏膜损伤的修复,减少再出血发生的风险。本研究的结果显示 C 组的止血时间、血压稳定时间以及胃管引流量均显著少于 A 组和 B 组,这说明兰索拉唑联合奥曲肽可显著缩短急性非静脉曲张性上消化道出血的止

血时间,减少患者的出血量。相关临床研究结果也证实^[26,27]奥曲肽和质子泵抑制剂的联合使用治疗非静脉曲张性上消化道出血的疗效优于单用质子泵抑制剂,说明奥曲肽和兰索拉唑联合使用具有协同作用,可进一步提高非静脉曲张性上消化道出血的治疗效果。同时,本研究的结果显示奥曲肽和兰索拉唑的联合使用并不显著增加不良反应的发生率,这说明该治疗方案具有良好的安全性。

综上所述,兰索拉唑联合奥曲肽治疗急性非静脉曲张性上消化道出血可显著提高止血效果,临床疗效明显优于单用兰索拉唑或奥曲肽治疗,且安全性相当。

参考文献(References)

- [1] 袁国钧,蔡华容.非静脉曲张性上消化道出血内镜治疗后再出血的危险因素分析[J].海南医学院学报,2017,23(04): 482-484
Yuan Guo-jun, Cai Hua-rong. Analysis of risk factors of rebleeding after endoscopic therapy in patients with non-variceal upper gastrointestinal bleeding [J]. Journal of Hainan Medical University, 2017, 23 (04): 482-484
- [2] 梁涛,张建文.奥曲肽在活跃的非静脉曲张性上消化道出血中的临床疗效观察[J].中国医院药学杂志,2012,32(18): 1472-1475
Liang Tao, Zhang Jian-wen. Effect of octreotide as an adjunct treatment in active nonvariceal upper gastrointestinal bleeding[J]. Chinese Journal of Hospital Pharmacy, 2012, 32(18): 1472-1475
- [3] Singhi S, Jain P, Jayashree M, et al. Approach to a child with upper gastrointestinal bleeding[J]. Indian journal of pediatrics, 2013, 80(4): 326-333
- [4] Hiroshi Satoh. Discovery of lansoprazole and its unique pharmacological properties independent from anti-secretory activity [J]. Current pharmaceutical design, 2013, 19(1): 67-75
- [5] 李明华,冯群,李晓宇,等.兰索拉唑临床应用和不良反应研究进展[J].中国药物警戒,2014,(12): 729-731

- Li Ming- hua, Feng Qun, Li Xiao- yu, et al. Research Progress of Clinical Applications and Adverse Reactions of Lansoprazole[J]. Chinese Journal of Pharmacovigilance, 2014, (12): 729-731
- [6] 《中华内科杂志》编委会,《中华消化杂志》编委会,《中华消化内镜杂志》编委会等.急性非静脉曲张性上消化道出血诊治指南(2009, 杭州)[J].中华内科杂志, 2009, 48(10): 891-894
Editorial Boards of《Chinese Journal of Internal Medicine》, Editorial Boards of《Chinese Journal of Digestion》, Editorial Boards of《Chinese Journal of Digestive Endoscopy》, et al. Guidelines for managing patients with acute nonvariceal upper gastrointestinal bleeding(2009, Hangzhou)[J]. Chinese Journal of Internal Medicine, 2009, 48(10): 891-894
- [7] 匡大鹏.奥曲肽联合普萘洛尔治疗肝硬化上消化道出血及其对血流动力学的影响[J].山东医药, 2011, 51(44): 96-97
Kuang Da-peng. Octreotide combined with propranolol in the treatment of liver cirrhosis with upper gastrointestinal bleeding and its influence on hemodynamics [J]. Shandong Medical Journal, 2011, 51 (44): 96-97
- [8] 邵颖,魏晟,谭漫红,等.Blatchford 危险评分系统对老年人急性非静脉曲张上消化道出血的评估价值[J].中华老年医学杂志, 2015, 34 (1): 62-66
Shao Ying, Wei Sheng, Tan Man- hong, et al. Prognostic value of Blatchford score system in acute non-variceal upper gastrointestinal bleeding in elderly patients[J]. Chinese Journal of Geriatrics, 2015, 34 (1): 62-66
- [9] 曹鑫,寿松涛,赵珍,等.不同评分系统对急性非静脉曲张性上消化道出血患者危险分层的预测价值 [J]. 中国全科医学, 2017, 20(14): 1759-1764
Cao Xin, Shou Song-tao, Zhao Zhen, et al. Predictive Value of Different Scoring Systems for Risk Stratification in Patients with Acute Non-variceal Upper Gastrointestinal [J]. Chinese General Practice, 2017, 20(14): 1759-1764
- [10] Holster I L, Kuipers E J . Management of acute nonvariceal upper gastrointestinal bleeding: Current policies and future perspectives[J]. World journal of gastroenterology: WJG, 2012, 18(11): 1202-1207
- [11] 张琼,刘海霞.不同剂量奥美拉唑治疗消化性溃疡合并上消化道出血的临床研究[J].医学综述, 2013, 19(17): 3217-3218
Zhang Qiong, Liu Hai-xia. Research on Different Doses of Omeprazole in Treatment of Peptic Ulcer Complicated with Upper Gastrointestinal Bleeding[J]. Medical Recapitulate, 2013, 19(17): 3217-3218
- [12] 杨丽娟,陈立松,李冰,等.大鼠应激性溃疡模型复制及埃索美拉唑的干预效果[J].中国老年学杂志, 2015, 35(22): 6364-6366
Yang Li- juan, Chen Li- song, Li Bing, et al. Replication of stress ulcer model in rats and intervention effects of esomeprazole[J]. Chinese Journal of Gerontology, 2015,35(22): 6364-6366
- [13] 李邦夫. 泮托拉唑与奥美拉唑治疗消化性溃疡合并出血的疗效分析[J].实用药物与临床, 2013, 16(9): 867-869
Li Bang-fu. Clinical effect of pantoprazole and omeprazole on patients with peptic ulcer complicated with hemorrhage [J]. Practical Pharmacy and Clinical Remedies, 2013, 16(9): 867-869
- [14] Nishino M, Sugimoto M, Uotani T, et al. Association of gastric mucosal injury severity with platelet function and gastric pH during low-dose aspirin treatment[J]. Digestion, 2013, 88(2): 79-86
- [15] 汪先忠,袁军,黄道华,等.选择性干预重型脑伤、脑出血患者胃液酸碱度预防消化道应激性溃疡出血的研究[J].中华全科医学, 2015, 13(9): 1442-1444
Wang Xian- zhong, Yuan Jun, Huang Dao- hua, et al. Effectiveness of a selective intervention program targeting gastric juice acidity on preventing gastrointestinal bleeding due to stress ulceration in patients with severe brain injury or cerebral hemorrhage[J]. Chinese Journal of General Practice, 2015, 13(9): 1442-1444
- [16] 朱德义,刘家喜.消化性溃疡患者血清胃蛋白酶元、胃泌素和 TGF- α 水平的变化及临床评估 [J]. 放射免疫学杂志, 2012, 25(4): 411-412
Zhu De-yi, Liu Jia-xi. Clinical Evaluation of the Changes on Serum PG, GS and TGF- α in Patients with Peptic Ulcer [J]. Journal of Radioimmunology, 2012, 25(4): 411-412
- [17] 谭玉娟,马玉奎,方超,等.左旋泮托拉唑钠对幽门结扎大鼠胃溃疡模型的治疗作用[J].中国比较医学杂志, 2015, 25(8): 54-57
Tan Yu-juan, Ma Yu-kui, Fang Chao, et al. Protective effects of left-handed pantoprazole sodium on the rat model of gastric ulcer generated by pyloric ligation [J]. Chinese Journal of Comparative Medicine, 2015, 25(8): 54-57
- [18] 刘波,姚鸿萍.临床常用质子泵抑制剂的研究进展[J].西北药学杂志, 2014, 29(3): 328-332
Liu Bo, Yao Hong- ping. Research progress of the proton pump inhibitors[J]. Northwest Pharmaceutical Journal, 2014, 29(3): 328-332
- [19] 胡艺,刘菲,袁颖华,等.质子泵抑制剂兰索拉唑和奥美拉唑对胃溃疡患者 MDA, SOD 及 NO 的影响[J].现代生物医学进展, 2017, 17 (17): 3274-3277
Hu Yi, Liu Fei, Yuan Ying-hua, et al. Effect of Lansoprazole and Omeprazole on MDA, SOD and NO Levels in Treatment of Gastric Ulcer[J]. Progress in Modern Biomedicine, 2017, 17(17): 3274-3277
- [20] Park J H, Baek E K, Choi C H, et al. Comparison of the efficacy of 4- and 8- week lansoprazole treatment for ESD- induced gastric ulcers: A randomized, prospective, controlled study [J]. Surgical Endoscopy, 2014, 28(1): 235-241
- [21] 陈坚.质子泵抑制剂的分类及药理学特性[J].上海医药, 2013, (21): 3-7
Chen Jian. The classification and pharmacological characteristics of proton pump inhibitors [J]. Shanghai Medical and Pharmaceutical Journal, 2013, (21): 3-7
- [22] 王永栋,刘建茹,王莹,等.奥曲肽和普萘洛尔治疗肝硬化上消化道出血对疗效及血流动力学的影响 [J]. 河北医药, 2016, 38(5): 706-708
Wang Yong-dong, Liu Jian-ru, Wang Ying, et al. Efficacy of octreotide and propranolol in the treatment of liver cirrhosis with upper gastrointestinal bleeding and its influence on hemodynamics[J]. Hebei Medical Journal, 2016, 38(5): 706-708
- [23] 金哲,周宝民,王大勇,等.泮托拉唑联合奥曲肽在消化性溃疡并上消化道出血的治疗应用[J].临床荟萃, 2014, 29(11): 1299-1301
Jin Zhe, Zhou Bao- min, Wang Da-yong, et al. Pantoprazole combined with octreotide in the treatment of peptic ulcer and upper gastrointestinal bleeding[J]. Clinical Focus , 2014, 29(11): 1299-1301

- Chen Xiao-yan, Han Guang-hui. New tumor markers: human epididymis 4 [J]. International Journal of Laboratory Medicine, 2014, 35(4): 454-457
- [17] 饶云霞. 子宫内膜癌患者血清 HE4、CP2、HCgp-39 含量与肿瘤恶性程度的关系探究[J].海南医学院学报, 2017, 23(4): 444-447
- Rao Yun-xia. Relationship of serum HE4, CP2 and HCgp-39 levels with tumor malignancy in patients with endometrial carcinoma [J]. J Hainan Med Univ, 2017, 23(4): 444-447
- [18] Karlsen NS, Karlsen MA, Høgdall CK, et al. HE4 tissue expression and serum HE4 levels in healthy individuals and patients with benign or malignant tumours - a systematic review [J]. Cancer Epidemiol Biomarkers Prev, 2014, 23(11): 2285-2295
- [19] Zhou X, Wang H, Wang X. Preoperative CA125 and fibrinogen in patients with endometrial cancer: a risk model for predicting lymphovascular space invasion [J]. Journal of Gynecologic Oncology, 2017, 28(2): e11
- [20] Kemal YN, Demirag GN, Bedir AM, et al. Serum human epididymis protein 4 levels in colorectal cancer patients [J]. Mol Clin Oncol, 2017, 7(3): 481-485
- [21] Lu Q, Chen H, Senkowski C, et al. Recombinant HE4 protein promotes proliferation of pancreatic and endometrial cancer cell lines[J]. Oncology Reports, 2016, 35(1): 163-170
- [22] Miyagi E, Maruyama Y, Mogami T, et al. Comparison of plasma amino acid profile-based index and CA125 in the diagnosis of epithelial ovarian cancers and borderline malignant tumors[J]. International Journal of Clinical Oncology, 2017, 22(1): 118-125
- [23] Dong C, Liu P, Li C. Value of HE4 Combined with Cancer Antigen 125 in the Diagnosis of Endometrial Cancer [J]. Pakistan Journal of Medical Sciences, 2017, 33(4): 1013-1017
- [24] Modarres-Gilani M, Vaezi M, Shariat M, et al. The prognostic role of preoperative serum CA125 levels in patients with advanced endometrial carcinoma[J]. Cancer Biomarkers, 2017, 20(2): 1-7
- [25] Huang T, Jiang S W, Qin L, et al. Expression and diagnostic value of HE4 in pancreatic adenocarcinoma[J]. International Journal of Molecular Sciences, 2015, 16(2): 2956-2970
- [26] 张智,陈红霞,徐晓霞.血清人附睾蛋白 E4、CA125、CA199 联合诊断子宫内膜癌的价值[J].实用医学杂志, 2016, 32(7): 1108-1111
- Zhang Zhi, Chen Hong-xia, Xu Xiao-xia. The values of the combined detection of serum human epididymis protein E4, CA125 and CA199 in diagnosis of endometrial cancer [J]. The Journal of Practical Medicine, 2016, 32(7): 1108-1111
- [27] He B, Zhang H Q, Xiong S P, et al. Changing patterns of Serum CEA and CA199 for Evaluating the Response to First-line Chemotherapy in Patients with Advanced Gastric Adenocarcinoma [J]. Asian Pacific Journal of Cancer Prevention Apjcp, 2015, 16(8): 3111-3116
- [28] Zhong W, Yu Z, Zhan J, et al. Association of serum levels of CEA, CA199, CA125, CYFRA21-1 and CA72-4 and disease characteristics in colorectal cancer[J]. Pathology & Oncology Research, 2015, 21(1): 83-95
- [29] 罗树玲,郑春艳,曹锦慧.血清 CA125 和 HE4 检测在子宫内膜癌中的临床意义[J].中国实验诊断学, 2016, 20(9): 1490-1492
- Luo Shu-ling, Zheng Chun-yan, Cao Jin-hui. Clinical Significance of CA125 and HE4 Assay In endometrial carcinoma[J]. Chinese Journal of Laboratory Diagnosis, 2016, 20(9): 1490-1492
- [30] Chen Y, Gao S G, Chen J M, et al. Serum CA242, CA199, CA125, CEA, and TSGF are Biomarkers for the Efficacy and Prognosis of Cryoablation in Pancreatic Cancer Patients [J]. Cell Biochemistry & Biophysics, 2015, 71(3): 1287-1291
- [31] 张玉香,任红伟,刘春丽.血清 NGAL 和 CA125 联合检测在子宫内膜癌组织中的临床应用[J].海南医学院学报, 2015, 21(4): 543-546
- Zhang Yu-xiang, Ren Hong-wei, Liu Chun-li. Clinical application of serum NGAL and CA125 combined detection in endometrial carcinoma [J]. Journal of Hainan Medical University, 2015, 21(4): 543-546

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- [24] Wang Chao, Han Juan, Xiao Liang, et al. Efficacy of vasopressin/terlipressin and somatostatin/octreotide for the prevention of early variceal rebleeding after the initial control of bleeding: a systematic review and meta-analysis [J]. Hepatology international, 2015, 9(1): 120-129
- [25] Zhang Y, Liu Z, Liu X, et al. Prediction of octreotide efficacy by electrogastrography in the treatment of patients with esophageal variceal hemorrhage[J]. Physiological measurement, 2013, 34(7): 799-812
- [26] 胡桂英,余保平.奥曲肽联合质子泵抑制剂治疗非静脉曲张性上消化道出血的 Meta 分析 [J]. 胃肠病学和肝病杂志, 2015, 24(12): 1479-1484
- Hu Gui-ying, Yu Bao-ping. Effect of Octreotide combined with proton pump inhibitor in treatment of non variceal upper gastrointestinal bleeding: a Meta-analysis[J]. Chinese Journal of Gastroenterology and Hepatology, 2015, 24(12): 1479-1484
- [27] 张茶丽,于红刚.奥曲肽联合质子泵抑制剂治疗非静脉曲张上消化道出血的 Meta 分析 [J]. 胃肠病学和肝病杂志, 2012, 21(6): 528-532
- Zhang Cha-li, Yu Hong-gang. Octreotide joint proton pump inhibitors in treating non-variceal gastrointestinal bleeding: a Metaanalysis[J]. Chinese Journal of Gastroenterology and Hepatology, 2012, 21(6): 528-532