

醋酸奥曲肽用于小儿急腹症术后的疗效观察[△]

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摘要 目的:观察醋酸奥曲肽用于小儿急腹症患儿术后的疗效及安全性。方法:选择急腹症患儿130例,按照随机数字表法分为观察组和对照组,各65例。对照组患儿术后给予注射用头孢曲松钠50 mg/kg,iv,qd,以及维持水电解质平衡;观察组患儿在对照组基础上采用微泵持续给予醋酸奥曲肽注射液0.01 mg/(kg·d),ivgtt(术后即刻),1~3 d。观察两组患儿腹内压、胃肠功能恢复时间、肿瘤坏死因子 α (TNF- α)水平、肝/肾功能指标、血/尿淀粉酶水平,并记录不良反应发生情况。结果:观察组患儿的总有效率(98.5%)明显高于对照组(92.3%),差异有统计学意义($P<0.05$)。术后第3、5天,两组患儿腹内压、TNF- α 、血/尿淀粉酶水平均较术前明显降低,且观察组患儿明显低于对照组,胃肠功能恢复时间亦明显短于对照组,差异均有统计学意义($P<0.05$)。手术前后,两组患儿的肝、肾功能指标比较,差异均无统计学意义($P>0.05$)。两组患儿治疗过程中均未见明显不良反应发生。结论:醋酸奥曲肽用于小儿急腹症术后可有效降低患儿腹内压、TNF- α 、血/尿淀粉酶水平,改善胃肠功能,且安全性较高。

关键词 醋酸奥曲肽注射液;小儿急腹症;腹内压;淀粉酶;肿瘤坏死因子;肝功能;肾功能;胃肠功能

Efficacy Observation of Octreotide Acetate after Pediatric Acute Abdomen Surgery

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ABSTRACT OBJECTIVE: To observe the effects and safety of octreotide acetate after pediatric acute abdomen surgery. METHODS: 130 children with acute abdomen were selected and randomly divided into observation group and control group, with 65 cases in each group. Control group was given Ceftriaxone sodium for injection 50 mg/kg, iv, qd; after surgery to maintain water-electrolyte balance. Observation group was additionally given continuous pump of Octreotide acetate injection 0.01 mg/(kg·d), ivgtt (immediately after surgery), for 1-3 d, on the basis of control group. The intra-abdominal pressure, the time of gastrointestinal function recovery, TNF- α level, liver/renal function index and blood/urine amylase were observed in 2 groups, and the occurrence of ADR was recorded. RESULTS: The total effective rate of observation group (98.5%) was significantly higher than that of control group (92.3%), with statistical significance ($P<0.05$). On 3rd and 5th day after surgery, intra-abdominal pressure, the levels of TNF- α and blood/urine amylase were decreased significantly, compared to before surgery; the indexes of observation group were lower than that of control group, and the recovery of gastrointestinal function in observation group was significantly better than in control group, with statistical significance ($P<0.05$). There was no statistical significance in liver and renal function indexes between 2 groups before and after surgery ($P>0.05$). No obvious ADR was found in 2 groups during treatment. CONCLUSIONS: For pediatric acute abdomen, octreotide acetate can effectively reduce intra-abdominal pressure, the levels of TNF- α and blood/urine amylase, and improve gastrointestinal function with good safety

KEYWORDS Octreotide acetate injection; Pediatric acute abdomen; Intra-abdominal pressure; Amylase; TNF; Liver function; Renal function; Gastrointestinal function

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急腹症是一种常见的腹部疾病,临床主要表现为急性腹痛,起病急,进展快,其发病率逐年增加^[1]。儿童的器官和系统处于发育阶段,且受到语言表达能力的限制,使小儿急腹症的诊断较为困难。小儿急腹症起病急骤,进展迅速,确诊后应该积极给予治疗。小儿急腹症的主要方法为外科手术,但患儿术后腹膜和肠壁一般仍存在炎症和腹腔渗液,同时由于手术刺激、麻醉冲击和内毒素等多方面的影响,患儿容易发生肠麻痹、胃肠功能恢复缓慢,术后腹内压上升,血尿淀粉酶水平升高^[2]。术后腹内压上升还会诱发腹腔高压症、腹腔间室综合征,阻碍术后伤口愈合,影响患者肺、心、肾、肝、肠道等功能。醋酸奥曲肽在抑制人体胰蛋白酶的释放、改善微循环、减少炎症介质和内毒素水平等方面具有重要的作用^[3]。醋酸奥曲肽也被用于小儿急腹症术后,但其对患儿腹内压和血尿淀粉酶水平影响的研究报道较少。鉴于此,本研究观察了醋酸奥曲肽用于小儿急腹症患儿术后的疗效及安全性,以期为临床提供参考。

1 资料与方法

1.1 纳入与排除标准

纳入标准:(1)符合《小儿急腹症诊断概述》中小儿急腹症的诊断标准^[4],需要行外科手术治疗者;(2)年龄1~14岁;(3)患儿监护人均知情同意并签署知情同意书。

排除标准:(1)并发消化系统及其他系统疾病者;(2)经手术确诊为腹腔内大出血者;(3)临床资料不全者;(4)对醋酸奥曲肽注射液药物过敏者。

1.2 研究对象

本研究方案经医院医学伦理委员会审核批准后,选择我院2013年8月—2016年3月收治的急腹症患儿130例,按照随机数字表法分为观察组和对照组,各65例。其中,观察组患儿男性37例,女性28例;平均年龄(5.9±2.2)岁;平均体质量(20.8±7.6)kg;平均腹痛时间(41.8±3.1)h;急性穿孔坏疽性阑尾炎伴弥散性腹膜炎31例,急性肠梗阻15例,腹部闭合性损伤7例,急性小肠结肠炎5例,消化道穿孔5例,肠扭转2例。对照组患儿男性35例,女性30例;平均年龄(6.2±2.5)岁;平均体质量(21.5±8.4)kg;平均腹痛时间(42.7±3.5)h;急性穿孔坏疽性阑尾炎伴弥散性腹膜炎31例,急性肠梗阻15例,腹部闭合性损伤7例,急性小肠结肠炎5例,消化道穿孔4例,肠扭转3例。两组患儿在性别、年龄、体质量、腹痛时间和疾病分布等一般资料比较,差异无统计学意义($P>0.05$),具有可比性。

1.3 治疗方法

对照组患儿术后采用常规治疗,给予注射用头孢曲松钠(上海罗氏制药有限公司,批准文号:国药准字H10983037,规格:0.5g)50mg/kg,iv,qd,同时给予维持水电解质平衡、禁食和胃肠减压等。观察组患儿在对照组基础上采用微泵持续给予醋酸奥曲肽注射液(成都天台山制药有限公司,批准文号:国药准字H20031207,规格:1ml:0.1mg)0.01mg/(kg·d),ivgtt(术后即刻),1~3d(肠蠕动恢复后停用)。

1.4 观察指标及疗效评判

(1)观察两组患儿手术前后腹内压,采用膀胱压力测定法测定^[5],测量3次取平均值。(2)观察两组患儿术后胃肠功能恢复(肠鸣音恢复、首次排气、首次排便)时间。(3)观察两组患儿手术前后血清肿瘤坏死因子 α (TNF- α)水平,采用酶联免疫吸附(ELISA)法测定,操作步骤严格按照TNF- α 检测试剂盒(上海基免实业有限公司)说明书执行。(4)观察两组患儿术前和术后第5天的肝功能指标[丙氨酸转氨酶(ALT)、天冬氨酸转

氨酶(AST)]和肾功能指标[血尿素氮(BUN)、血肌酐(Scr)]。(5)观察两组患儿手术前后血、尿淀粉酶水平。(6)观察两组患儿临床疗效。疗效判定标准——治愈:临床症状、体征、血/尿淀粉酶在3d内恢复正常;好转:临床症状、体征、血/尿淀粉酶4~7d恢复正常;未愈:临床症状、体征、血尿淀粉酶恢复正常时间 >7 d或病情加重。总有效=治愈+好转。(7)记录两组患儿不良反应发生情况。

1.5 统计学方法

采用SPSS 20.0统计软件对数据进行统计分析。计量资料以 $\bar{x}\pm s$ 表示,采用 t 检验;计数资料以率表示,采用 χ^2 检验。 $P<0.05$ 为差异有统计学意义。

2 结果

2.1 两组患儿手术前后腹内压比较

术前,两组患儿腹内压比较,差异无统计学意义($P>0.05$)。术后,两组患儿腹内压均先升高后降低。术后第3、5天,两组患儿腹内压均较术前明显降低,且观察组患儿明显低于对照组,差异有统计学意义($P<0.05$)。两组患儿手术前后腹内压比较见表1。

表1 两组患儿手术前后腹内压比较($\bar{x}\pm s$, cm H₂O)

Tab 1 Comparison of intra-abdominal pressure between 2 groups before and after surgery ($\bar{x}\pm s$, cm H₂O)

组别	<i>n</i>	术前	术后第1天	术后第3天	术后第5天
观察组	65	18.05±1.46	19.47±1.65	12.35±1.25**	4.65±0.96**
对照组	65	18.14±1.53	19.85±1.73	15.81±1.17*	9.46±1.02*

注:1 cm H₂O=0.1 kPa;与术前比较,* $P<0.05$;与对照组比较,** $P<0.05$

Note:1 cm H₂O=0.1 kPa;vs. before surgery,* $P<0.05$;vs. control group,** $P<0.05$

2.2 两组患儿术后胃肠功能恢复时间比较

观察组患儿肠鸣音恢复时间、首次排气和首次排便时间均明显短于对照组,差异均有统计学意义($P<0.05$),详见表2。

表2 两组患儿术后胃肠功能恢复时间比较($\bar{x}\pm s$, h)

Tab 2 Comparison of the time of gastrointestinal function recovery between 2 groups after surgery ($\bar{x}\pm s$, h)

组别	<i>n</i>	肠鸣音恢复时间	首次排气时间	首次排便时间
观察组	65	20.52±8.17*	32.74±9.22*	51.67±11.31*
对照组	65	29.06±11.28	45.23±11.46	64.81±12.44

注:与对照组比较,* $P<0.05$

Note:vs. control group,* $P<0.05$

2.3 两组患儿手术前后TNF- α 水平比较

术前,两组患儿TNF- α 水平比较,差异无统计学意义($P>0.05$)。术后,两组患儿TNF- α 水平均先升高后降低。术后第3、5天,两组患儿TNF- α 水平均较术前明显降低,且观察组明显低于对照组,差异有统计学意义($P<0.05$)。两组患儿手术前后TNF- α 水平比较见表3。

表3 两组患儿手术前后TNF- α 水平比较($\bar{x}\pm s$, ng/ml)

Tab 3 Comparison of the level of TNF- α between 2 groups before and after surgery ($\bar{x}\pm s$, ng/ml)

组别	<i>n</i>	术前	术后第1天	术后第3天	术后第5天
观察组	65	15.76±1.43	18.55±1.52*	11.07±1.63**	7.86±0.74**
对照组	65	15.54±1.62	18.68±1.73*	14.43±1.87*	11.01±0.93*

注:与术前比较,* $P<0.05$;与对照组比较,** $P<0.05$

Note:vs. before surgery,* $P<0.05$;vs. control group,** $P<0.05$

2.4 两组患儿手术前后血/尿淀粉酶水平比较

术前,两组患儿血/尿淀粉酶水平比较,差异无统计学意义($P>0.05$)。术后,两组患儿血/尿淀粉酶水平均先升高后降低。

术后第3、5天,两组患儿血/尿淀粉酶水平均较术前明显降低,且观察组患儿明显低于对照组,差异有统计学意义($P<0.05$)。两组患儿手术前后血/尿淀粉酶水平比较见表4。

表4 两组患儿手术前后血/尿淀粉酶水平比较($\bar{x} \pm s, U/L$)

Tab 4 Comparison of blood and urine amylase between 2 groups before and after surgery($\bar{x} \pm s, U/L$)

组别	n	血淀粉酶				尿淀粉酶			
		术前	术后第1天	术后第3天	术后第5天	术前	术后第1天	术后第3天	术后第5天
观察组	65	601.41 ± 21.45	631.56 ± 26.57	326.63 ± 15.84**	204.82 ± 11.16**	604.36 ± 32.63	636.12 ± 34.28	300.62 ± 21.05**	184.34 ± 12.05**
对照组	65	597.36 ± 18.64	638.75 ± 27.15	406.71 ± 18.02*	284.25 ± 14.41*	602.74 ± 31.38	641.63 ± 35.06	385.73 ± 26.42*	253.07 ± 13.66*

注:与术前比较,* $P<0.05$;与对照组比较,** $P<0.05$

Note: vs. before surgery, * $P<0.05$; vs. control group, ** $P<0.05$

表5 两组患儿临床疗效比较[例(%)]

Tab 5 Comparison of clinical efficacies between 2 groups [case(%)]

组别	n	治愈	好转	未愈	总有效
观察组	65	58(89.2)	6(9.2)	1(1.5)	64(98.5)*
对照组	65	50(76.9)	10(15.4)	5(7.7)	60(92.3)

注:与对照组比较,* $P<0.05$

Note: vs. control group, * $P<0.05$

2.6 两组患儿手术前后肝、肾功能指标比较

手术前后,两组患儿的肝、肾功能指标比较,差异均无统计学意义($P>0.05$),详见表6。

表6 两组患儿手术前后肝、肾功能指标比较($\bar{x} \pm s$)

Tab 6 Comparison of liver and renal function indexes between 2 groups before and after surgery($\bar{x} \pm s$)

组别	n	时期	肝功能,U/L		肾功能,mmol/L	
			ALT	AST	BUN	SCr
观察组	65	术前	30.63 ± 6.15	27.48 ± 5.82	5.76 ± 0.58	89.15 ± 9.13
		术后第5天	29.71 ± 4.57	28.02 ± 5.94	5.64 ± 0.65	89.24 ± 9.07
对照组	65	术前	27.92 ± 7.12	26.63 ± 5.07	5.68 ± 0.73	90.48 ± 5.74
		术后第5天	24.84 ± 6.36	27.91 ± 4.92	5.62 ± 0.61	89.65 ± 6.05

2.7 不良反应

两组患儿治疗过程中均未见明显不良反应发生。

3 讨论

醋酸奥曲肽属于胃肠外科常见药物,在小儿急性肠梗阻、小儿消化道出血和小儿胰腺炎等疾病中应用较多^[6],用于小儿急腹症术后的临床报道较为少见。小儿急腹症临床进展快,但由于患儿对症状的表述存在一定困难或准确性欠佳,致使临床对小儿急腹症的诊治困难,且易发生消化道穿孔和腹腔感染等并发症^[7-9]。致使急腹症患儿发生腹腔感染的细菌大部分是革兰氏阴性杆菌和厌氧菌,其产生的毒素可对患儿产生影响,比如肠蠕动功能减退、内分泌失衡等^[10],表现为腹胀和腹腔压力上升等,腹腔压力上升则危害患儿腹腔内脏器,使之出现循环障碍^[11]。急腹症患儿术后早期通常存在腹胀现象,临床治疗则应控制腹腔感染^[12]。本研究观察了在常规使用抗菌药物治疗基础上,加用醋酸奥曲肽控制腹腔感染的疗效。结果显示,观察组患儿的总有效率明显高于对照组,肠鸣音恢复时间、首次排气时间和首次排便时间均明显短于对照组,可见在常规治疗的基础上使用醋酸奥曲肽能够提升小儿急腹症的疗效,促进患儿术后肠道功能恢复,与Pai V等^[13]的研究结论一致。Starkopf J等^[14]的研究显示,影响小儿急腹症术后腹内压升高的因素较多,如手术刺激、感染、腹水等。Campos-Muñoz MA等^[15]的研究显示,腹内压上升对患儿心、肺、肾和胃肠等全身多个器官、系统不利。本研究显示,观察组患儿术后3、5 d腹内压较对照组更低,可见醋酸奥曲肽能促进黏膜修复和腹

2.5 两组患儿临床疗效比较

观察组患儿的总有效率(98.5%)明显高于对照组(92.3%),差异有统计学意义($P<0.05$),详见表5。

腔内渗液的吸收,防止腹腔内毒素吸收进而降低腹内压,与Mcquade RM等^[16]的研究结果一致。

进一步分析发现,观察组患儿术后TNF- α 水平较对照组更低,可见醋酸奥曲肽可加速TNF- α 炎性因子水平降低,从而缓解机体受到炎性因子损伤和多脏器功能障碍综合征的发生。Murakami H等^[17]的研究显示,血淀粉酶浓度的上升标志着机体胰腺组织、细胞和结构遭到破坏,淀粉酶释放进入血液,可能存在急性胰腺炎。但是,人体除腮腺、胰腺细胞存在淀粉酶,胆囊、空肠、回肠和胃等其他部位也存在淀粉酶,理论上,如果上述部位遭到破坏,则相应会诱发血淀粉酶的上升^[18]。血淀粉酶在机体代谢中,约有30%经由肾脏代谢^[19],当血淀粉酶上升后,机体尿淀粉酶水平也会相应上升。本研究显示,观察组患儿术后第3、5天的血/尿淀粉酶水平均明显低于对照组,可见醋酸奥曲肽降低血/尿淀粉酶水平较快。

本研究对患儿的肝、肾功能的检测发现,两组患儿手术前后ALT、AST、BUN和SCr等指标水平均无明显差异,提示两种治疗方案对患儿的肝、肾功能均不会产生影响,安全性较高。

综上所述,醋酸奥曲肽用于小儿急腹症术后可有效降低患儿腹内压、TNF- α 和血/尿淀粉酶水平,改善胃肠功能,且安全性较高。但本研究样本量较小,尚需今后扩大样本量,进一步研究论证。

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乌菝莓膏治疗高位复杂性肛瘘术后创面的临床观察^Δ

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摘要 目的:观察乌菝莓膏治疗高位复杂性肛瘘术后创面的临床疗效及安全性。方法:选取拟行高位复杂性肛瘘患者72例,按随机数字表法分为对照组和观察组,各36例。两组患者均行高位复杂性肛瘘术。对照组患者术后清洗创面,给予凡士林油纱条外敷创面,每天1次;观察组患者术后清洗创面,给予乌菝莓膏外敷创面,再敷凡士林油纱条,每天1次。两组患者均用药至创面愈合为止。观察两组患者治疗后临床疗效、创面愈合时间、创面分泌物pH值、创面分泌物量(以浸透纱布总数计)和疼痛程度[采用视觉模拟(VAS)评分法]、创面二次感染发生率及不良反应发生情况。结果:观察组患者治疗后治愈率和创面分泌物pH值均显著高于对照组,创面愈合时间、创面分泌物浸透纱布总数、VAS评分和创面二次感染发生率均显著低于或短于对照组,差异均有统计学意义($P<0.05$)。两者患者均未见明显不良反应发生。结论:乌菝莓膏治疗高位复杂性肛瘘术后创面疗效较好,并能改善创面微环境,降低复发率,且安全性较好。

关键词 高位复杂性肛瘘;乌菝莓膏;复发率;视觉模拟评分

Clinical Observation of *Cayratia japonica* Cream in the Treatment of Wound after High Complex Anal Fistula Surgery

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ABSTRACT OBJECTIVE: To observe clinical efficacy and safety of *Cayratia japonica* cream in the treatment of wound after high complex anal fistula surgery. METHODS: 72 patients with high complex anal fistula were selected and divided into control group and observation group according to random number table, with 36 cases in each group. Both groups received high complex anal fistula surgery. Control group was given vaseline gauze for wound dressing, once a day, after cleaning surgery wound; observation group applied *C. japonica* cream and then was given vaseline gauze for wound dressing, once a day, after cleaning surgery wound. Both groups was given medicine utile wound healing. Clinical efficacy, healing time, pH value of wound secretion, the rate of pterygium, the amount of wound secretion (by total anout of saked gauze), pain degree (by VAS score) the incidence of wound secondary infection and the occurrence of ADR were observed in 2 groups after treatment. RESULTS: The cure rate pH value of wound secretion (by total anout of saked gauze), VAS score and in observation group after treatment were significantly lower or shorter than in control group, with statistical signnificance ($P<0.05$). There were no obvious adverse reactions in 2 groups. CONCLUSIONS: *C. japonica* cream can effectively reduce recurrence rate after high complex anal fistula surgery and improve wound microenvironment with good safety.

KEYWORDS High complex anal fistula; *Cayratia japonica* cream; Recurrence rate; VAS

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