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盐酸羟考酮注射液用于腹部全麻患者术后镇痛的有效性和安全性

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摘要 目的：探讨盐酸羟考酮注射液用于腹部全麻患者术后镇痛的有效性和安全性。**方法**：选择 2016 年 1 月至 2016 年 12 月来我院治疗的择期全麻下行腹部手术的患者 60 例。按照治疗方法，采用随机数字表法将患者平均分为硫酸吗啡注射组(简称吗啡组)和盐酸羟考酮注射组(简称羟考酮组)，每组 30 例。用药 3、24、48 h 后，采用 VAS 方法对患者进行疼痛评分。记录术后 48 h 内患者补救镇痛率以及患者对镇痛的满意度。记录 72 h 后患者恶心、呕吐等不良事件的发生情况。**结果**：镇痛 48 h 内的不同时间点，两组间 VAS 评分、补救镇痛率与吗啡组相比无显著差异(P>0.05)。羟考酮组术后不良事件发生率为 16.7 %，显著低于吗啡组 40.0 %(P<0.05)，羟考酮组患者镇痛满意度显著高与吗啡组(93.3 % vs. 70.0 %)，差异具有统计学意义(P<0.05)。**结论**：盐酸羟考酮注射液的镇痛效果与硫酸吗啡相当，且可安全有效地改善患者术后生活质量，提高患者满意度。

关键词：腹部手术；术后镇痛；盐酸羟考酮；硫酸吗啡

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Efficacy and Safety of Oxycodone Hydrochloride Injection for Postoperative Analgesia in Patients Undergoing Operation under General Anesthesia

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ABSTRACT Objective: To study the efficacy and safety of oxycodone hydrochloride injection for postoperative analgesia in patients undergoing operation under general anesthesia. **Methods:** Sixty patients undergoing operation under general anesthesia admitted into our hospital from Jan 2016 to Dec 2016 were randomly divided into oxycodone group (n=30) and morphine group (n=30). According to the group, the patients were received oxycodone or morphine. Pain was assessed using VAS score at 3 h, 24 h and 48 h after administration. Requirement for rescue analgesic and the level of Patients' satisfaction were recorded within 48 h after operation. The adverse events were recorded within 72 h after administration. **Results:** There was no significant difference in the VAS scores and requirement for rescue analgesic(P>0.05). The adverse events in oxycodone group were obviously fewer than that of morphine group (16.7 % vs. 40.0 %, P<0.05). The level of patient's satisfaction in oxycodone group were obviously higher than that of morphine group (93.3 % vs. 70.0 %, P<0.05). **Conclusion:** The analgesic efficacy of oxycodone is similar to that of morphine, and oxycodone can effectively reduce postoperative pain, improve the quality of life of patients after surgery and improve patient satisfaction.

Key words: Abdominal surgery; Postoperative anesthesia; Oxycodone hydrochloride; Morphine sulfate

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前言

开腹手术或者其他外科术创伤大，会导致患者术后疼痛剧烈，还会使患者产生焦虑、烦躁等不良情绪[1]，尤其女性患者对于术后疼痛的耐受性较差，对术后疼痛更加敏感，严重影响患者预后[2,3]。因此，最大限度的降低患者术后疼痛是外科手术医生及麻醉医生急需解决的重要问题之一。盐酸羟考酮是 μ、κ 双受体类激动剂，属于强阿片类药物，起效快、镇痛效果好，可安全应用于术后镇痛[4-6]。而吗啡也是术后患者常用的镇痛类药物。本研究通过分析比较盐酸羟考酮和硫酸吗啡用于全麻患者术后的镇痛效果、疗效及安全性，以期为腹部全麻患者术后镇痛提供更多的参考。

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1 资料与方法

1.1 一般资料

选取 2016 年 1 月至 2016 年 12 月来我院治疗的择期全麻下行腹部手术的患者 60 例作为研究对象，其中男性 36 例、女性 24 例，年龄 18-66 岁，平均年龄(54.2± 7.6)岁，ASA I-II 级，随机将患者平均分为硫酸吗啡注射组(吗啡组)和盐酸羟考酮注射组(羟考酮组)，每组 30 例。纳入标准：无严重器官性疾病，无药物过敏史，无长期应用阿片类药物史，无凝血功能障碍，签署知情同意书。排除标准：合并严重心、肝、肾功能障碍，对本研究所用药物过敏者，患有恶性肿瘤者，精神疾病者。本研究所有内容均符合本院伦理部门审核并批准。两组患者的年龄、性别、体重、身高、并发症发生率以及 ASA 等级等一般资料无显著差异(P>0.05)，见表 1。

表 1 两组患者一般资料比较($\bar{x}\pm s$)

Table 1 The comparison of general conditions between two groups($\bar{x}\pm s$)

Group	Number	Age(Year)	Gender		Height (cm)	Weight (kg)	The rate of complications (%)	ASA Grade (I/II)
			Male	Female				
Morphine group	30	53.9± 4.3	19	13	169.3± 6.8	64.3± 5.6	24.3	18/12
Oxycodone group	30	55.1± 3.	17	11	168.2± 5.8	65.8± 8.6	25.6	16/14

1.2 治疗方法

术前对所有入组患者的原发疾病进行积极治疗。进入手术室后,行常规监测并建立静脉通路。麻醉诱导:两组患者均静脉注射芬太尼(生产企业:宜昌人福药业有限责任公司,批准文号:国药准字 H20030197,规格:1 mg)0.15 mg,丙泊酚(生产企业:广东嘉博制药有限公司,批准文号:国药准字 H20051842,规格:20 ml:200 mg)1.5 mg/kg,维库溴铵(生产企业:浙江仙琚制药股份有限公司,批准文号:国药准字 H19991172,规格:4 mg) 0.1 mg/kg,气管插管后行机械通气。麻醉维持:通过微量泵泵入丙泊酚 6 mg/kg·min,顺式阿曲库铵(批准文号:国药准字 H20090202,生产企业:浙江仙琚制药股份有限公司,规格:5 mg)2 μg/kg·min 进行麻醉维持。手术完成前 0.5 h 停止给予丙泊酚和肌松药。手术结束后,静脉注射阿品脱 1 mg 以消除肌松药效应。待患者恢复意识后,且血氧饱和度达 95%以上时拔出气管导管。

拔管后当患者清醒主诉疼痛时,应立即静脉注射硫酸吗啡注射液(生产厂家:青海制药厂有限公司,批准文号:国药准字 H20010317,规格:1 mL:30 mg)或盐酸羟考酮注射液(生产企业:HAMOL LIMITED,进口药品注册文号:H20130314,规格:1 ml:10 mg)1 mg,根据患者需要可重复给药,直至患者疼痛评分 VAS≤ 40 mm 后,可采用 PCA 镇痛泵进行镇痛,输注速率设为 0.5 mg/h,吗啡或羟考酮的用药量为 1 mg/ 次,锁定时间 5 min。

1.3 观察指标

疗效评价:记录用药后 3、24、48 h 后患者 VAS 评分,术后 48 h 内补救镇痛率及患者对镇痛满意度。

安全性评价:观察用药后 72 h 内不良事件发生率。

1.4 统计学分析

采用 SPASS 17.0 统计学软件进行分析, 计量资料以均数± 标准差表示,采用 t 检验,计量资料以率表示,采用 x^2 检验,P<0.05 表示差异有统计学意义。

2 结果

2.1 两组患者不同时点 VAS 评分比较

镇痛 3、24、48 h 后, 两组间 VAS 评分比较差异无统计学意义(P>0.05),见表 2。

表 2 两组患者不同时点 VAS 评分比较($\bar{x}\pm s$)

Table 2 The comparison of VAS score between two groups at different time points($\bar{x}\pm s$)

Groups	Number	3 h	24 h	48 h
Morphine group	30	24.9± 2.2	22.1± 4.3	13.4± 8.3
Oxycodone group	30	26.1± 3.3	23.9± 5.2	15..3± 6.6
P value		>0.05	>0.05	>0.05

2.2 两组患者不同时点补救镇痛率比较

在镇痛过程中,羟考酮组有 4 例接受补救镇痛,吗啡组有 5 例患者要求镇痛补救,两组患者不同时点补救镇痛率比较差异无统计学意义(P>0.05),见表 3。

表 3 两组患者补救镇痛率比较[例(%)]

Table 3 The comparison of requirement for rescue analgesic between two groups[n(%)]

Groups	Number	0-3 h	3-24 h	24-48 h	Total
Morphine group	30	3(10.0)	2(6.7)	0(0.0)	5(16.7)
Oxycodone group	30	2(6.7)	1(3.3)	1(3.3)	4(13.3)
P value		>0.05	>0.05	>0.05	>0.05

2.3 两组患者不良事件发生率比较

术后 72 h 内对患者术后的不良事件发生率进行比较,结果显示羟考酮组患者总体不良事件发生率显著低于吗啡组(P<0.05),见表 4。

表 4 两组患者不良事件发生率比较[例(%)]

Table 4 The comparison of adverse events between two groups[n(%)]

Groups	Number	Restlessness	Nausea	Vomiting	Total
Morphine group	30	5(16.7)	4(13.3)	3(10.0)	12(40.0)
Oxycodone group	30	2(6.7)*	1(3.3)*	2(6.7)*	5(16.7)*
P value					<0.05

Note: compared with Morphine Group ,*P<0.05.

2.4 两组患者满意度比较

术后统计两组患者的满意度，吗啡组患者的总体满意度为70.0%，羟考酮组患者的总体满意度为93.3%，两组具有统计学差异(P<0.05)，见表5。

表5 两组患者满意度比较[例(%)]

Table 5 The comparison of the level of patient's satisfaction between two groups[n(%)]

Groups	Number	Satisfaction	Acceptance	Dissatisfaction	Total satisfaction rate
Morphine group	30	19(63.3)	2(6.7)	9(30.0)	70.0%
Oxycodone group	30	25(83.3)*	3(10.0)*	2(6.7)*	93.3%
P value					<0.05

Note: compared with Morphine group,*P<0.05

3 讨论

开腹手术会形成大面积创伤，术后疼痛是最常见的术后并发症。疼痛会对患者生理上造成一系列的不良影响，也会导致患者情绪上的波动，如烦躁、焦虑等，还会使患者产生严重的认知功能障碍等影响[7,8]。因此临床上应尽量满足患者的术后镇痛需求，做好临床监测工作，以减少不良事件的发生。

硫酸吗啡和盐酸羟考酮是临床上应用较广泛的阿片类镇痛药物。吗啡的生物代谢特点是吸收快、生物半衰期短，且副作用大，在临床应用中受到限制[12,13]。但有研究表明行单侧人工关节置换术时对患者采用小剂量吗啡可降低患者认知功能障碍的发生率[9-11]。盐酸羟考酮与吗啡同为阿片类药物，作用机制相似，但其是μ、κ双受体激动剂，还具有即释和控释双重作用，给药后短时间内即可发挥镇痛作用，且镇痛时间可长达12 h以上[14-16]。羟考酮在体内经过代谢可分解成为无镇痛活性的去甲羟考酮和有活性的氢吗啡酮，但氢吗啡酮血浆浓度低，因此在静脉给药时，羟考酮和吗啡的镇痛效能相当[17-19]。本研究吗啡组和羟考酮组在术后各时间点的VAS评分无显著差异的结果保持一致，因此补救药物率也无显著差异。术后镇痛成功与否关系着患者的满意度，当吗啡和羟考酮两种药物的镇痛疗效相当，患者的满意度评价则依赖不良事件发生率的高低。本研究结果表明羟考酮组总体不良事件的发生率显著低于吗啡组(16.7 % vs.40.0 %)。Richards P [20]等研究结果表明羟考酮组不良事件的发生率显著低于吗啡组(10.64 % vs.21.28 %)，略低于本研究。推测可能与本文入组例数较少有一定关系，为获得更加准确的结果，我们也会在将来开展更加深入的研究。

综上所述，盐酸羟考酮注射液可安全用于术后中重度疼痛的镇痛，且镇痛疗效好，安全性高，恶心、呕吐等不良事件发生率小，患者满意度高。

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