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右美托咪定联合丙泊酚在无痛胃肠镜中的应用及对患者认知功能的影响*

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摘要 目的:探讨盐酸右美托咪定联合丙泊酚在无痛胃肠镜中的应用效果及对患者认知功能的影响。**方法:**选择 2015 年 8 月到 2018 年 8 月我院接诊的行无痛胃肠镜患者的 90 例为研究对象,按照数字表随机分组法分为观察组(n=47)和对照组(n=43)。对照组使用丙泊酚进行麻醉,观察组采用右美托咪定联合丙泊酚进行麻醉。比较两组患者的麻醉效果、诱导时间、清醒时间、离室时间、术前、术后简易智能状态量表(MMSE)评分及不良反应的发生情况。**结果:**两组患者麻醉优良率分别为 97.87%、76.74%,观察组显著高于对照组($P<0.05$);两组患者诱导时间比较无显著性差异;观察组患者清醒时间、离室时间均显著短于对照组($P<0.05$);术后 30 min、3 h 及 6 h,观察组患者 MMSE 评分均高于对照组($P<0.05$);观察组患者不良反应总发生率为 10.64%,显著低于对照组的 30.23%($P<0.05$)。**结论:**盐酸右美托咪定联合丙泊酚用于无痛胃肠镜的麻醉效果明显优于单用丙泊酚,并可有效改善患者认知功能。

关键词:右美托咪定;丙泊酚;无痛胃肠镜;认知功能

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Application of Dexmedetomidine Combined with Propofol for the Painless Gastroenteroscopy and Its Effect on the Cognitive Function of Patients*

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ABSTRACT Objective: To study Application of dexmedetomidine combined with propofol in painless gastroenteroscopy and its effect on cognitive function of patients. **Methods:** 90 cases of painless gastroenteroscopy patients admitted to our hospital from August 2015 to August 2018 were selected as research objects, the observation group (n=47) and control group (n=43) were randomly divided according to the number table. The control group was treated with propofol for anesthesia, and the observation group was treated with dexmedetomidine combined with propofol for anesthesia. The anesthetic effect, induction time, awake time, ventricular departure time, preoperative and postoperative MMSE score and adverse reactions were compared between the two groups. **Results:** The excellent and good rates of anesthesia in the two groups were 97.87% and 76.74%, respectively. The observation group was significantly higher than the control group ($P<0.05$). There was no significant difference in induction time between the two groups. Patients in the observation group had significantly shorter awake time and time away from the room than those in the control group ($P<0.05$). At 30min, 3h and 6h after surgery, MMSE scores of patients in the observation group were all higher than those in the control group ($P<0.05$). The overall incidence of adverse reactions in the observation group was 10.64%, significantly lower than 30.23% in the control group ($P<0.05$). **Conclusion:** Dexmedetomidine hydrochloride combined with propofol for painless gastroenteroscopy is significantly better than propofol alone, and can effectively improve the cognitive function of patients.

Key words: Dexmedetomidine; Propofol; Painless gastroenteroscopy; Cognitive function

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前言

传统胃肠镜检查时间长,患者往往较为痛苦,多伴有恐惧心理,给检查带来困难。无痛胃肠镜是一种新型无痛胃镜检查技术,能使患者在无痛状态下完成检查和治疗,便于胃肠镜的

观察^[1-3]。无痛胃肠镜主要是通过静脉麻醉诱导患者入睡,减少其不适和恐惧感,广泛运用于临床^[4-6]。丙泊酚是最常用的静脉麻醉药,用于全身麻醉的诱导和维持,具有起效快、作用时间短等优点,但是存在心血管作用影响大等缺点^[7,8]。右美托咪定是一种 α_2 肾上腺素能受体激动剂,能有效的增加镇静、镇痛时

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间,降低患者在苏醒期的躁动发生率^[11-13]。有研究显示在无痛胃肠镜中使用右美托咪定能明显改善患者认知功能情况^[9,10]。因此。本研究主要探讨了右美托咪定联合丙泊酚在无痛胃肠镜中的麻醉效果剂其对患者认知功能的影响,现将结果报道如下。

1 资料与方法

1.1 一般资料

选择 2015 年 8 月到 2018 年 8 月我院接诊的行无痛胃肠镜患者的 90 例进行研究,研究已获得我院伦理会批准实施,所有受试者家属均签署知情同意书。通过随机数表法将其分为 2 组,观察组男 29 例,女 24 例,年龄 55-81 岁,平均(68.34± 7.56)岁;对照组中,男 25 例,女 22 例,年龄 56~82 岁,平均(69.71± 9.68)岁。两组患者一般资料比较差异无统计学意义($P>0.05$),具有可比性。

纳入标准:(1)文化程度均在小学及以上,能够配合本次研究;(2)术前无神经系统疾病史或药物滥用史;(3)肝、肾功能无明显异常,无心血管、呼吸系统重大疾病。排除标准:(1)有中枢神经系统疾病,服用抗抑郁药等;(2)有严重视听说功能障碍者、老年痴呆以及药物依赖者;(3)有心血管、呼吸系统等重大手术史者;(4)有本研究药物禁忌症的患者。

1.2 方法

对照组患者静脉输注芬太尼(规格 10 mL:0.5 mg,厂家:宜昌人福药业有限责任公司,国药准字 H20003688)1 μ g/Kg,再静脉注射丙泊酚(规格 50 mL:500 mg,厂家:AstraZeneca UK Limited,国药准字 H20080473)1.5 mg/Kg。观察组患者在对照组的基础上泵入右美托咪定(规格 1 mL:100 μ g,厂家:江苏恒瑞医药股份有限公司,国药准字 H20130093)0.4 μ g/Kg。

1.3 观察指标

采用 MMSE 进行认知能力检测;观察记录诱导时间、清醒时间、离室时间及不良反应发生情况。

麻醉优良率评价标准:优:术中安静,无肢体活动;良:面部有痛苦表情,小幅度肢体活动;差:面部表情痛苦,机体活动大,影响检查。优良率=(优+良) $\times$ 100.0%。

1.4 统计学分析

以 SPSS18.0 软件包处理数据,计量资料均用均数 $\pm$ 标准差($\bar{x}\pm s$)表示,组间比较使用独立样本 t 检验,计数资料以率表示,组间比较采用 χ^2 检验,以 $P<0.05$ 表示差异具有统计学意义。

2 结果

2.1 两组患者麻醉效果比较

两组患者麻醉优良率分别为 97.87%、76.74%,观察组显著高于对照组,差异具有统计学意义($P<0.05$),详见表 1。

表 1 两组患者镇痛效果比较[例(%)]

Table 1 Comparison of the analgesic effect between the two groups[n(%)]

Groups	n	Excellent	Good	Poor	The excellent
Observation group	47	35(74.47)	11(23.40)	1(2.13)	46(97.87)
Control group	43	19(44.19)	14(32.56)	10(23.26)	33(76.74)
χ^2 value					9.344
P value					0.002

2.2 两组患者临床参数的比较

两组患者诱导时间比较无显著性差异;观察组患者清醒时

间、离室时间均显著短于对照组($P<0.05$),详见表 2。

表 2 两组患者临床参数比较($\bar{x}\pm s$,min)

Table 2 Comparison of the clinical parameters between the two groups($\bar{x}\pm s$, min)

Groups	n	Induction time	Waking hours	Time away from the room
Observation group	47	1.57 $\pm$ 0.26	3.12 $\pm$ 1.04	35.67 $\pm$ 11.01
Control group	43	1.67 $\pm$ 0.35	4.25 $\pm$ 1.14	42.95 $\pm$ 11.31
t value		1.547	4.918	3.093
P value		0.125	0.000	0.003

2.3 两组患者术前和术后 MMSE 评分的比较

术前,两组患者 MMSE 评分比较无显著性差异;术后 30 min、3h 及 6h,观察组患者 MMSE 评分均显著高于对照组($P<0.05$),详见表 3。

2.4 两组患者不良反应发生情况的比较

观察组患者不良反应总发生率为 10.64%,显著低于对照组(30.23%),差异具有统计学意义($P<0.05$),详见表 4。

3 讨论

无痛胃肠镜检查是临床消化道疾病的常用诊疗方法,将麻醉技术与内镜技术相结合,是指在麻醉下实施内镜植入术,有较高的诊断敏感性和准确性,可使患者在安静、安全中完成检查,消除患者的恐惧心理^[14-16]。因此,麻醉药物的选择是这项技术的重点^[17]。丙泊酚属于烷基酚类短效静脉麻醉药,常被用于一些门诊小手术及无痛检查的静脉麻醉,可在 40 s 内发挥睡眠效果,诱导快速且平稳,但是在单一使用时,常需要加大剂量,增加其对呼吸、循环的抑制作用,故较多学者提出在此基础上联合治疗以提高其临床疗效^[18-20]。右美托咪定是一种具有镇痛、

催眠、抗焦虑、抑制交感神经活性的新型高选择性药物,是一种麻醉辅助用药,因其本身的镇静、镇痛作用减少其他麻醉药的

用量,从而减少麻醉药的副作用,减轻气管插管期间的应激反应,并能有效维持血流动力学稳定^[21-23]。

表3 两组患者术前和术后 MMSE 评分的比较($\bar{x} \pm s$, 分)Table 3 Comparison of the MMSE scores before and after operation between the two groups($\bar{x} \pm s$, points)

Groups	n	Preoperative 1 d	Postoperative		
			30 min	3 h	6 h
Observation group	47	29.86 $\pm$ 0.42	25.77 $\pm$ 0.41	27.96 $\pm$ 0.24	29.31 $\pm$ 0.17
Control group	43	29.91 $\pm$ 0.49	21.94 $\pm$ 0.51	25.11 $\pm$ 0.61	26.69 $\pm$ 0.31
t value		0.521	39.417	29.634	50.280
P value		0.604	0.000	0.000	0.000

表4 两组患者不良反应发生情况的比较[例(%)]

Table 4 Comparison of the incidence of adverse reactions between the two groups[n(%)]

Groups	n	Art of absorbing move	Apnea	Nausea and vomiting	Dizzy	The total incidence of
Observation group	47	1	1	1	2	5(10.64)
Control group	43	5	3	3	2	13(30.23)
χ^2 value						5.388
P value						0.020

本研究结果显示右美托咪定治疗组优良率高达 97.87%, 明显高于单纯丙泊酚治疗, 提示联合治疗能明显提高患者麻醉效果。Eskander A E^[24]等研究表明右美托咪定用于无痛胃肠镜镇痛, 能减少术中体动、呼吸暂停等并发症的发生。本研究结果也显示联合治疗的患者不良反应总发生率为 10.64%, 明显低于单独使用丙泊酚的患者, 与上述观点基本一致。分析是因为丙泊酚具有起效快、作用时间短、恢复快; 而右美托咪定具有较强的镇痛、镇静, 同时对呼吸无明显抑制, 按临床推荐剂量, 两种药物联合减少术中麻醉药物用量, 提高临床效果, 减少术后并发症。本研究结果还显示联合治疗的患者清醒时间、离室时间均显著低于单独使用丙泊酚的患者, 提示联合治疗能明显改善患者临床参数, 与 Hay J M^[25]研究结果相似。

认知功能障碍是一种常见的术后并发症, 严重影响患者术后生活质量^[26,27]。MMSE 是最具影响的标准化智力状态检查工具, 操作简单, 是认知障碍的常用检查方法^[28,29]。本研究结果显示联合右美托咪定治疗的患者在术后 30 min、3 h 及 6 h MMSE 评分均高于单独使用丙泊酚的患者, 提示联合治疗能有效改善患者认知功能, 与 Pearl J^[30]研究结果相似。分析是因为丙泊酚属于烷基酚类短效静脉麻醉药, 停药后患者苏醒快而完全; 而盐酸右美托咪定用于术后辅助麻醉, 是有效的 α_2 - 肾上腺素受体激动剂, 能够通过抑制机体应激反应来降低术后患者的炎症因子, 减少其儿茶酚胺, 保护患者的中枢神经, 故两者联用改善患者的认知功能。

综上所述, 盐酸右美托咪定联合丙泊酚用于无痛胃肠镜的麻醉效果明显优于单用丙泊酚, 并可有效改善患者认知功能。

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