

右美托咪定在预防腹腔镜阑尾切除术 麻醉复苏期躁动中的应用价值

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摘要: 目的 观察右美托咪定在腹腔镜阑尾切除术中预防患者麻醉苏醒期躁动的临床应用价值。方法 回顾性分析 2016 年 1 月至 2017 年 12 月行全麻腹腔镜阑尾切除术 60 例患者的临床资料。根据麻醉前是否给予右美托咪定分为观察组($n=30$)和对照组($n=30$)。比较两组手术结束后(T1)、气管导管拔除时(T2)和气管拔管后 5 min(T3)的平均动脉压(MAP)、心率(HR)变化情况,观察两组恢复时间、拔管时间及躁动发生率。结果 在 T1、T2 和 T3 时,观察组的 MAP 和 HR 均显著低于对照组($P<0.05$)。观察组 T2 和 T3 的 MAP、HR 与 T1 比较均无显著差异($P>0.05$),但对对照组 T2、T3 的 MAP 及 HR 明显高于 T1($P<0.05$)。观察组苏醒时间为(10.4 ± 2.1)min,对照组为(9.5 ± 1.6)min,两组间差异不明显($t=1.87, P=0.07$);观察组拔管时间为(15.9 ± 5.7)min,对照组为(14.8 ± 5.1)min,两组间差异不明显($t=0.79, P=0.43$)。观察组拔管前 1 分钟(T4)的躁动发生率低于对照组(3.3% vs 23.3%, $P<0.05$)。结论 右美托咪定用于腹腔镜阑尾切除术安全、有效,可减少患者躁动的发生率。

关键词: 右美托咪定; 腹腔镜; 阑尾切除术; 躁动; 苏醒时间; 平均动脉压

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Dexmedetomidine in the prevention of agitation during anaesthesia resuscitation of laparoscopic appendectomy

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Abstract: Objective To observe the clinical value of dexmedetomidine in laparoscopic appendectomy for preventing agitation during anesthesia recovery period. **Methods** The clinical data of 60 patients undergoing laparoscopic appendectomy under general anesthesia were retrospectively analyzed. The patients were divided into observation group with dexmedetomidine before anesthesia and control group without dexmedetomidine before anesthesia ($n=30$, each). The changes of mean arterial pressure (MAP) and heart rate (HR) at the end of operation (T1), at the time of tracheal catheter extraction (T2) and 5 minutes after tracheal extubation (T3) were compared between two groups. The recovery time, extubation time and incidence of restlessness were observed too. **Results** At T1, T2 and T3, MAP and HR in observation group were significantly lower than those in control group (all $P<0.05$). There were no significant differences in MAP and HR between T2, T3 and T1 in observation group (all $P>0.05$), but MAP and HR at T2 and T3 were significantly higher than those at T1 in control group (all $P<0.05$). The wake-up time was (10.4 ± 2.1) min in observation group and (9.5 ± 1.6) min in control group, and there was no significant difference between two groups ($t=1.87, P=0.07$). There was no significant difference in extubation time between two groups [(15.9 ± 5.7) min vs (14.8 ± 5.1) min, $t=0.79, P=0.43$]. The incidences of restlessness at 1 minute before extubation (T4) in observation group were statistically lower than those in control group (3.3% vs 23.3%, $P<0.05$). **Conclusion** The application of dexmedetomidine in laparoscopic appendectomy is safe and effective and can reduce the incidence of agitation in the patients.

Key words: Dexmedetomidine; Laparoscopy; Appendectomy; Agitation; Wake-up time; Mean arterial pressure

表 3 两组患者 T3、T4 时躁动及 T3 时不良反应发生率比较
[n=30,例(%)]

组别	T3 躁动	T4 躁动	T3 恶心呕吐	T3 头昏	T3 视物模糊
对照组	9(30.0)	7(23.3)	4(13.3)	2(6.6)	3(10.0)
观察组	2(6.6)	1(3.3)	3(10.0)	3(10.0)	2(6.6)
χ^2 值	5.45	5.19	0.02	0.22	0.22
P 值	0.02	0.02	0.69	0.64	0.64

3 讨论

LA 手术结束拔除气管导管时,因为各种刺激因素的存在,患者不可避免地出现不同程度的应激反应和各种不良反应。临床上为了避免这种不良反应的发生,会在麻醉诱导前联合应用一些抑制交感神经、抗焦虑及镇痛镇静作用的药物。在本研究中,观察组于麻醉诱导前泵入的右美托咪定就是此类药物,研究发现,观察组患者在拔除气管导管及拔除气管导管后 5 min 时的 MAP 及 HR 明显低于没有给予右美托咪定的对照组,因为右美托咪定是 α_2 -肾上腺素能受体激动剂,通过抑制去甲肾上腺素的释放起到抑制交感、抗焦虑及镇痛镇静的作用,引起心率减慢和血压下降^[3]。但这种心率减慢和血压下降是在可控的安全范围内,不需要临床干预,实现了患者从麻醉到镇静的平稳转换^[4-5]。麻醉复苏期拔除气管导管时,对气管和喉咙的刺激产生交感—副交感神经反射,从而导致心率加快、血压升高^[6],本研究中对照组在拔除气管导管及拔除气管导管后 5 min 时的 MAP 及 HR 明显高于 LA 手术结束时,而观察组在拔除气管导管及拔除气管导管后 5 min 时的 MAP 及 HR 与手术结束时比较无明显差异,可能是因为右美托咪定可以通过抑制拔管时交感神经兴奋,减弱气道和循环的反应,维持血流动力学稳定性。然而据报道低剂量右美托咪定引起心动过缓导致心脏骤停。因此对于术前认为迷走神经张力增高、心脏传导阻滞或严重心室功能障碍的患者,右美托咪定应慎重使用^[7]。另外,在理论上,右美托咪定也可以有抑制患者恶心呕吐的药效^[3],但观察组 3 例出现恶心呕吐,且与对照组无明显差异。全麻后的躁动为手术中较常见的麻醉不良反应,多数是因为术中疼痛、气管导管或导尿管等的刺激导致,近期的文献报道指出:全麻后躁动发生率从 16.1% 至 64%^[8-9],在本研究中,观察组患者 T3、T4 躁动发生率明显低于对照组,提示右美托咪定通过抑制焦虑、镇静、镇痛、交感神经抑制等作用降低躁动的发生率。在本研究中,右美托咪定术前使用延长

了患者的恢复时间和拔管时间,一些学者认为这是右美托咪定的一个重要缺点^[10],但这种时间的延长较对照组差异无统计学意义。同时也有文献指出高剂量右美托咪定由于其麻醉药保留效应,利于快速觉醒^[11]。

本研究的局限在于不是大样本的比较分析,样本量相对较小,结果可能偏颇。例如,本组两组患者均出现恶心呕吐的不良反应,无统计学差异,与文献^[11]报道有部分不一致。总之,麻醉诱导前给予适量右美托咪定泵注后可以起到抑制交感神经、抗焦虑及镇痛镇静作用,有效地减少了术后气管导管拔除引起的不适及患者复苏期出现躁动的发生率。

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