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The effects of platelet activating factor antagonist on intestinal mucosal microcirculation after scalding in rats*

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Abstract Objective: To investigate the effects and their mechanism of platelet activating factor (PAF) antagonist on the intestinal mucosal microcirculation after scalding in rats. Methods: The changes of intestinal mucosal blood flow, intestinal intramucosal pH (pHi) and intestinal water content were determined on rats suffering from 30% TBSA third degree scalding and treated with PAF antagonist WEB2170. Results: PAF antagonist treatment of the scalded rats could significantly increase intestinal mucosal blood flow and pHi, decrease intestinal water content and alleviate evidently the intestinal mucosal damages as compared with those of the control group. Conclusion: PAF is one of the important factors to result in postburn disturbance of intestinal mucosal microcirculation.

Key words platelet activating factor; intestinal mucosa; blood flow; intramucosal pH; burns; rat

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异丙酚在门诊手术中的应用

The application of propofol in the operation of outpatient clinic

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异丙酚(Propofol)是一种新型的短效静脉全麻药,具有起效快、作用时间短、恢复迅速而平稳、不良反应少等特点,近年来国外已广泛用于全麻诱导及维持。现将我们用于门诊手术的情况介绍如下。

1 资料与方法

选择 ASA Ⅰ-Ⅱ级的择期手术成年病人 31例,性别: 男 8例,女 23例。年龄 18~ 35岁,体重 41~ 72 kg 手术种类: 脓肿切开引流术 13例;妇科人流、取环及诊刮术 18例。

麻醉方法: 麻醉前给予阿托品 10μg/kg肌注。患者入手术室后在前臂浅静脉建立静脉通道以注射异丙酚及术中输液。手术区消毒铺巾后,以 2~ 25 mg/kg 静脉注射异丙酚,速度 20 mg/10 s,从开始注射异丙酚起连续询问患者注射处有无疼痛或嘱其数数,直至入睡即开始手术,根据患者对手术刺激的反应情况,必要时静脉追加异丙酚 40~ 50 mg,以维持适当的镇静深度,术中保留自主呼吸,视 SpO_2 下降程度给予托起下颌鼻导管供氧。

术中连续监测 R、P、SpO_2、DBP、SBP,同时观察记录用药过程中的不良反应,所得数据以 $\bar{x}\pm s$ 表示,采用 t 检验。

2 结果

本组平均诱导用药剂量 120 mg(90~ 150 mg),维持用药量 38 mg(0~ 100 mg),总用药量 150 mg(90~ 200 mg),平均手术时间 4.3 min(1~ 11 min),麻醉时间 5.5 min(5~ 12 min)。

全部病例麻醉诱导及维持效果满意。其中 8例人工流产病人在手术刺激较大时出现轻度肢体活动,4例肛旁脓肿患者体动较剧烈,追加药物体动消失。其他病例对手术耐受良好。手术时间短于 5 min者仅给诱导剂量便可完成手术,5 min以上者则随手术时间延长需追加异丙酚 1~ 4次。停药后苏醒时间为 3~ 8 min,5 min内苏醒者 15例,8 min内苏醒者 4例,术毕恢复迅速,平均 21 min(0.5~ 5 min)能正确回答问题。

8例在诱导时出现注射部位疼痛。

诱导后患者普遍出现心率减慢,手术 2 min时心率与注射前相比相差显著($P < 0.01$),手术结束,清醒后心率与注药前无明显差异,其中 1例患者诱导后出现心动过缓,心率从 87 bpm降至 57 bpm,2 min后自行恢复正常。

手术 2 min,术毕即刻与注药前 SpO_2 相比相差显著($P < 0.01$),清醒后 SpO_2 恢复正常。诱导 3 min内,8例患者 SpO_2 一度低于 94%,其中 1例 SpO_2 降至 87% 麻醉医师用手托起下颌保持呼吸道通畅,SpO_2 可恢复正常。

呼吸变化表现为呼吸动度减小,频率基本不变。血压的变化表现为诱导后明显下降($P < 0.01$),并持续到术毕($P < 0.05$),清醒后 BP恢复到注药前水平。

几乎所有需用截石位手术的患者异丙酚注射后均发生双腿自腿架上滑落现象。术中、术后无一例发生恶心、呕吐等不良反应。

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Developmental changes of long-term potentiation in hippocampus CA1 region in rats*

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Abstract **Objective**: To investigate the developmental changes of long-term potentiation (LTP) in the hippocampus CA1 region. **Methods**: Schaffer lateral branch in CA3 region was simulated to record LTP in CA1 region. **Results**: The probability of the induction of LTP in the CA1 region in 1-month-old rats was the lowest among all groups. The PS amplitude and fEPSP slope of different age rats were significantly increased after tetanic stimulation but the intensity of LTP in 2-month-old rats was stronger than those in 1-month-old and 6-month-old rats. **Conclusion**: There are obvious developmental changes of LTP and the intensity of LTP in 2-month-old rats is the highest.

Key words long-term potentiation; development; hippocampus; rat

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3 讨论

本组异丙酚用于人流、脓肿切开引流等门诊手术,患者入睡快,苏醒也快,且醒后对手术无记忆,无恶心、呕吐及嗜睡等不良反应,可尽快的恢复正常活动,术后观察数小时即可离院。

异丙酚对心血管及呼吸系统有一定的抑制作用,用药后血压和心率明显下降,但基本稳定在正常范围内,可不予处理,这一现象与体血管扩张,外周阻力降低有关[1]。异丙酚可引起呼吸变浅、暂停及随之发生的 SpO_2降低等,一般持续时间短暂,不需作特殊处理,保持呼吸道通畅可自行恢复,有条件时可给予鼻导管吸氧。局部注射疼痛是异丙酚本身对血管内膜的刺激所致,预先注射利多卡因可减少疼痛发生率[2]。

本组截石位手术中 7例出现较剧烈的肢体活动以及用药后患者双下肢松弛并自腿架上滑落,这一现象说明:异丙酚在深镇静条件下有一定的肌松作用,提醒我们术前准备时应将患者双下肢固定于腿架上,以免术中双腿滑落而影响手术操作。

异丙酚不具备镇痛作用,在神经末梢丰富的部位如会阴部手术时,患者体动较多,而且随刺激增强而加剧,此时需加大异丙酚用量。异丙酚对心血管的抑制及对呼吸的抑制也加强[3],因此,凡是需要镇痛而时间又长的手术单独用异丙酚,效果不理想应适当辅助镇痛剂。

关键词 异丙酚;门诊手术
中图法分类号 R971

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