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Changes of plasma aldosterone and atrial matriurtic peptide in patients during hypotension induced with prostaglandin E_1 and sodium nitroprusside

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Abstract The purpose of this study is to compare the influence of controlled hypotension induced with prostaglandin E_1 (PGE_1) and sodium nitroprusside (SNP) on central venous pressure (CVP), plasma level of aldosterone (Ald) and atrial natriuretic peptide (ANP) during operations of patients with hepatobiliary or pancreatoduodenal disease under intravenous PDS balanced anesthesia. 31 Patients were divided into the control, PGE_1 and SNP groups of which the patients were administered with normal saline, PGE_1 or SNP respectively. Mean arterial pressure was decreased by 30% and kept for 1 hour. It was found that CVP, Ald and ANP showed no changes in the control during the observation period. CVP did not change during hypotension in PGE_1 and SNP groups. Ald was increased and ANP decreased significantly during hypotension in PGE_1 and SNP groups and the magnitude of changes was slightly lower in PGE_1 group than in SNP group. It was concluded that the influence of hypotension induced with PGE_1 on Ald and ANP was simlar to that induced by SNP. PGE_1 would not interfere with the secretion of stress hormones such as Ald and ANP significantly.

Key words Prostaglandin E_1; sodium nitroprusside; hypotension/controlled; aldosterone; atrial natriuretic peptide

大鼠肠淋巴瘘的制作

A technique for collection of lymph from the small intestine by artificial intestinal lmphatic fistula in rat

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肠道是最大的贮菌库,严重创伤后,肠道内细菌和内毒素可通过受损的肠粘膜屏障入侵到体循环。途径主要有两条:肠淋巴管和门静脉。近几年,有不少学者认为以淋巴途径为主。然而目前国内尚未见应用肠淋巴瘘动物模型来研究肠源性感染的报道。笔者经过努力探索,成功地制作了 Wistar 大鼠肠淋巴瘘模型。

1 制作方法

健康 Wistar 大鼠69只,体重230～270 g,戊巴比钠(30 mg/kg)腹腔麻醉,腹部手术野电推剃毛,仰卧位,固定四肢,手术在无菌操作下进行,上腹部正中切口长约2.5 cm,进入腹腔后,将胃、肠向左翻起,于右肾静脉平面,在肠系膜动脉处寻找肠淋巴管,常见位置有如下几种:①多数位于肠系膜动脉的上方,与其平行;②围绕肠系膜动脉;③位于肠系膜动脉下方。鉴别有困难时,向肠腔内注入美兰,然后可见到蓝色淋巴液流过肠淋巴管。

插管前,在肠淋巴管稍上方分离下腔静脉,并在下腔静脉后置一硅胶管(外径:0.8 mm,内径:0.5 mm),经肝下方到右侧腹腔,在一根长针引导下穿过右侧腹壁肌层,皮下潜行至右腹股沟外侧引出并妥善固定。

分离肠淋巴管,给予结扎,主干附近若有分支,也将其结扎,暂不剪线。插入前用肝素液冲洗硅胶管,在肠淋巴管上剪一小口,将硅胶管插入,此时可见淋巴液经管流出,用结扎肠淋巴管的线固定硅胶管。腹腔内注入2～3 ml 生理盐水,缝合腹壁,然后放入大鼠限制笼[1]。麻醉清醒后,自由进食,将淋巴液收集到有盖的刻度试管内。肠淋巴液正常时为乳白色,术后偶有血性,一般在术后10～20 h 左右,肠淋巴液量趋于稳定。本组大鼠平均流量为14～19 ml/d,可维持一周左右。

2 注意事项

①术中动作轻柔、准确,防止损伤肠淋巴管、肠系膜动脉和附近组织;②插管后,引流管应妥善固定,绕到下腔静脉后,经肝下方,从右侧腹壁引出;③避免动物用嘴咬和爪抓引流管,我们将常用的大鼠笼改造成为限制笼[1],经试用证明,该笼不影响大鼠头部、前腿和躯干前部的活动,肠淋巴液引流通畅。

关键词 肠淋巴瘘;大鼠

中图法分类号 R322.26

参考文献

1 彭毅志,肖光夏,马 利等.大鼠限制笼的制作.第三军医大学学报,1994;16(4):280

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