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Effects of hypoxia on the remodelling of myocardial fibrillar collagen network in rats

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Abstract Objective: To observe remodelling characteristics of myocardial fibrillar collagen network of the right ventricle under hypoxia in rats. Methods: 40 Wistar rats were randomized into normoxic control group and chronic hypoxic group. Hypoxic rats were exposed to simulated altitude of 5 000 m 8 h/d for 30 or 60 d. PaO_2 and the systolic pressure of right and left ventricles were measured. The changes of collagen content and the morphological changes of the myocardium were determined. Results: Chronic hypoxia resulted in a decrea of PaO_2 and an increase of right ventricular systolic pressure and right ventricular weight index. The concentration and content of collagen were increased in the right ventricle but remained unchanged in the left ventricle. The content of procollagen type Ⅲ in the plasma was positively correlated to the collagen concentration and content in the right ventricle in hypoxic rats. Conclusion: Chronic hypoxia induces the remodelling of right ventricular fibrillar collagen network and plasma content of procollagen type Ⅲ can reflect the changes of the collagen concentration and content in the right ventricle.

Key words hypoxia; collagen; right ventricle; hypertrophy; rat

小儿氯胺酮麻醉后出现短暂失明 1例

Transient blindness in a child induced by ketamine anesthesia

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1 临床资料

患儿男, 4岁, 因尿道下裂入院。既往无感冒发烧及眼病史。父母非近亲结婚, 无家族遗传病史。在氨胺酮麻醉下行尿道下裂修补术, 手术开始前先肌注氯胺酮 70 mg, 后以 0.1% 氯胺酮液 (含 0.004% 安定) 静滴维持麻醉。手术时间 2 h, 共静滴氯胺酮液 80 ml, 术中血压 15~ 17/10~ 12 kPa, 心率 120~ 130/min呼吸 30~ 32/min, 无缺氧、紫绀。术后 4 h患儿初醒后哭闹, 并称双眼看不见东西, 持续约 20 min后自行消失。

2 讨论

氯胺酮麻醉为小儿手术的常用麻醉方法, 但麻醉苏醒期出现短暂失明者不多见。氯胺酮为苯环己哌啶的衍生物, 其麻醉作用是由于非特异性中脑和丘脑核的通路产生功能性紊乱。麻醉苏醒期短暂失明可能与氯胺酮选择性地作用于外侧膝状体、视辐射和皮质视觉区有关[1,2]。也有人认为氯胺酮可导致视网膜微动脉收缩、血细胞聚积、血流淤滞和微栓等; 短暂失明为眼底血管痉挛所致[2]。随着血药浓度的逐渐降低, 氯胺酮对视觉中枢的作用减退及眼底血管痉挛的缓解, 患者的视觉将自行恢复, 故为一过性的失明。不需特殊处理。

关键词 氯胺酮; 麻醉; 短暂失明
中图法分类号 R614.1; R971.2

参考文献

1 刘俊杰, 赵 俊 主编. 现代麻醉学. 第 2版. 北京: 人民卫生出版社, 1998. 285~ 287
2 叶平安, 朱银南 著. 实用麻醉药理学. 西安: 陕西科技出版社, 1995. 361~ 369

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