

论著

## 普罗帕酮和普鲁卡因胺抗犬缺血性快速室性心律失常的对比研究

郭治彬, 李青, 曹宏宇, 徐智

(江西医学院第一附属医院心血管内科, 江西 南昌 330006)

收稿日期 2003-2-27 修回日期 网络版发布日期 2008-12-18 接受日期 2003-6-25

**摘要** 目的 观察普罗帕酮对犬在体心脏缺血性快速室性心律失常的心电生理影响并与普鲁卡因胺对比, 以探讨其抗缺血性快速室性心律失常的效果及作用机制。方法 用冠状动脉左前降支结扎并部分再灌注法造成犬急性前壁心肌梗死, 5~8 d 后, 辅以心室程控电刺激 (PES) 技术及冠状动脉内恒定微量直流电刺激技术, 并诱发与终止持续性室性心动过速和心室纤颤, 制备成犬急性心肌缺血再灌注后可控性快速室性心律失常的在体心脏电模型, 心电图对比观察普罗帕酮及普鲁卡因胺的抗心律失常作用。结果 普罗帕酮及普鲁卡因胺均能显著地延长心肌梗死犬的心电图QTc间期 ( $P<0.01$ ) 及正常和缺血心肌的有效不应期 ( $P<0.01$ ), 降低缺血心肌和左室心肌的有效不应期离散度 ( $P<0.01$ ), 提高正常心肌和缺血心肌的舒张期兴奋阈值 ( $P<0.01$ ), 抑制PES诱发的持续性室性心动过速和心室纤颤 ( $P<0.01$ ), 并能预防犬急性心肌梗死后再次缺血所致的自发性室性心动过速和心室纤颤 ( $P<0.05$ )。结论 ①该犬在体心脏电药理学实验模型具有较好的重复性、可靠性及临床相关性, 是一种有价值的心电药理学实验研究模型。②普罗帕酮及普鲁卡因胺均具有抗缺血性快速室性心律失常的心电生理作用, 是有效的抗颤药物, 两药效果相似。

**关键词** [普罗帕酮](#) [普鲁卡因胺](#) [心律失常](#) [心电图记录术](#) [心肌缺血](#)

分类号 [R972](#)

## Comparative study of propafenone and procainamide on canine ischemic ventricular tachyarrhythmias

GUO Zhi-Bin<sup>\*</sup>, LI Qing, CAO Hong-Yu, XU Zhi

(Department of Cardiovascular Diseases, the First Affiliated Hospital, Jiangxi Medical College, Nanchang 330006, China)

### Abstract

**AIM** To observe the electrophysiologic effects of propafenone(Prop) on canine ischemic ventricular tachyarrhythmias and compared with those of procainamide (PA), so as to evaluate the effect and mechanism of Prop on ischemic ventricular tachyarrhythmias. **METHODS** A canine ischemic ventricular tachyarrhythmia model was established by the left anterior descending coronary artery occlusion for 2 h and reperfusion. Five to eight days later, open-chest dogs were given programmed electrical stimulation (PES), and electrophysiologic data were measured by electrocardiogram (ECG).

**RESULTS** Both Prop and PA distinctly lengthened the QTc interval ( $P<0.01$ ) and effective refractory period (ERP) of normal and ischemic ventricular myocardium respectively ( $P<0.01$ ), decreased the dispersion of ERP in ischemic myocardium and in left ventricle ( $P<0.01$ ), and increased the diastolic excitability threshold of normal and ischemic ventricular myocardium remarkably ( $P<0.01$ ). Prop and PA effectively prevented PES- or ischemia-induced ventricular tachycardia or ventricular fibrillation ( $P<0.05$ , or  $P<0.01$ ).

**CONCLUSION** The canine model is a worthy and reliable one. Prop and PA may be effective in preventing the onset of ventricular tachycardia or ventricular fibrillation after myocardial ischemic damage. The antiarrhythmic effects of both drugs are similar.

**Key words** [propafenone](#) [procainamide](#); [arrhythmia](#) [electrocardiography](#) [myocardial ischemia](#)

DOI:

通讯作者 郭治彬 [gzbjxmu@163.com](mailto:gzbjxmu@163.com)

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