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高脂血症对移植前静脉内皮功能和组织形态的影响 [点此下载全文](#)

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摘要:

目的:研究静脉移植前高脂血症对静脉内皮功能和组织形态的影响。方法:成年雄性健康家兔50只,随机分为对照组(普通饮食)和实验组(高脂饮食),每组25只;分别在实验前和喂养2周、4周、8周、12周末,采集血样本和获取颈内静脉标本,酶标法检测血脂水平。获取静脉标本前行超声多普勒检查观察其管壁厚度、管腔内径变化以及有无脂质或粥样硬化斑块等。免疫组化法检测内皮型一氧化氮合酶(eNOS)的表达,硝酸还原酶法检测一氧化氮(NO)生成量,同时进行病理组织学检查。结果:(1)高脂喂养8周血脂升高异常显著($P < 0.01$),并稳定于此较高水平,同时出现颈动脉脂质斑块。(2)高脂血症兔颈内静脉eNOS蛋白表达、NO生成量显著降低($P < 0.05$),可见内皮剥脱、弹力纤维明显减少甚至消失,未见泡沫细胞和粥样斑块。结论:高脂血症可导致静脉内皮功能不全和组织形态学异常

关键词: [高脂血症](#) [静脉](#) [内皮型一氧化氮合酶](#) [一氧化氮](#)

Effect of hyperlipemia on endothelial function and histomorphology of venous conduit in rabbits before grafting [Download Fulltext](#)

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Abstract:

Objective: To investigate the effect of hyperlipemia on endothelial function and histomorphology of venous conduit in rabbits before grafting. Methods: Fifty adult male rabbits were randomly divided into 2 groups: one group was fed with normal diet (control group, n=25) and the other with high-cholesterol diet (hyperlipemia group, n= 25). The blood samples and cervical vein specimens were harvested before and 2, 4, 8 and 12 weeks after feeding. The serum levels of total cholesterol (TC), low-density lipoproteins (LDL), triglycerides (TG), and high-density lipoproteins (HDL) were determined. The expression of endothelial NO synthase (eNOS) protein, the production of NO, and the histopathological changes (including the thickness of intima and media, the diameters of the veins, and the presence of lipid or plaque) in the vein specimens were examined. Results: Eight weeks after feeding, the serum levels of TC, LDL, TG, and HDL in hyperlipemia group were significantly higher than those in the control group ($P < 0.01$). Obvious lipid plaques were formed in the carotid artery of rabbits in hyperlipemia group. The jugular veins of hyperlipemia rabbits had significantly lower eNOS expression and NO production ($P < 0.05$). Endothelial denudation was noticed and the elastic fibers almost disappeared in hyperlipemia group; there were no foam cells and lipid plaques. Conclusion: Hyperlipemia may result in endothelium dysfunction and histomorphological change of venous conduit

Keywords: [hyperlipidemia](#) [veins](#) [endothelial nitric oxide synthase](#) [nitric oxide](#)

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