

本期目录 | 下期目录 | 过刊浏览 | 高级检索

[打印本页] [关闭]

论著

心脏死亡供体的移植肾功能延迟恢复的危险因素分析

邵明杰¹, 叶启发^{1,2}, 明英姿¹, 余兴国¹, 刘洪¹, 叶少军¹, 牛英¹

1. 中南大学湘雅三医院器官移植中心, 长沙 410013;

2. 武汉大学中南医院, 武汉 430077

摘要:

目的:探讨心脏死亡供体(death cardiac donor, DCD)的移植肾功能延迟恢复(delayed graft function, DGF)发生的危险因素及预后情况。方法:收集中南大学湘雅三医院器官移植中心及武汉中南医院2010年2月至2012年3月的48例DCD肾移植受者,分为DGF组($n=18$)及肾功能稳定(immediate graft function, IGF)组($n=30$)。分析发生DGF的危险因素。结果:DGF的发生率为37.5%,在单因素分析中受者术前透析时间($P<0.001$)、HLA错配位点($P<0.001$)、脑出血死亡供体($P=0.011$)、供者BMI ($P<0.001$)、术前Scr ($P<0.001$)、使用去甲肾上腺素($P<0.001$)、热缺血时间 ($P<0.001$)、冷缺血时间 ($P<0.001$)为DGF的危险因素,在多因素分析中,受体术前透析时间 ≥ 12 个月($P=0.060$, OR=15.060)、脑出血死亡供体($P=0.022$, OR=39.652)、供体术前Scr $\geq 177 \mu\text{mol/L}$ ($P=0.008$, OR=57.148)为DGF独立的危险因素。结论:DGF的独立危险因子是受体术前透析时间 ≥ 12 个月、供体术前Scr $\geq 177 \mu\text{mol/L}$ 、脑出血死亡供体。

关键词: 心脏死亡器官捐献(DCD) 肾移植 肾功能延迟恢复(DGF) 危险因素

Delayed graft function after DCD kidney transplantation: risk factors for and impact on transplantation

SHAO Mingjie¹, YE Qifa^{1,2}, MING Yingzi¹, SHE Xingguo¹, LIU Hong¹, YE Shaojun¹, NIU Ying¹

1. Center of Transplantation, Third Xiangya Hospital, Central South University, Changsha 410013;

2. Zhongnan Hospital, Wuhan University, Wuhan 430077, China

Abstract:

Objective: To evaluate the risk factors of delayed graft function (DGF) and its impact on renaltransplantation from donation after cardiac death (DCD).

Methods: We conducted a retrospective study consisting of 48 subjects who underwent a DCDkidney transplantation from February 2010 to March 2012. We classified the recipients into twogroups: an IGF (immediate graft function) group ($n=30$) and a DGF group ($n=18$), and analyzedthe risk factors of DGF and its impact on transplantation.

Results: DGF occurred in 18 of the 48 (37.5%) kidenys from DCD donors, and the occurrenceof DGF did not adversely influence the survival of patients ($P=0.098$) and graft ($P=0.447$). In theunivariate analysis, the preoperative dialysis time of recipients ($P<0.001$), HLA mismatch site($P<0.001$), the cause of brain death ($P=0.011$), BMI ($P<0.001$), preoperative serum creatinineof donors ($P=0.0001$), norepinephrine used in donors ($P<0.001$), warm ischemia time (WIT)($P<0.001$), cold ischemia time (CIT) ($P<0.001$) showed significant differences. In the multivariateanalysis, cerebral hemorrhage as the cause of brain death ($P=0.022$, OR=39.652), preoperativeserum creatinine of donors $\geq 177 \mu\text{mol/L}$ ($P=0.008$, OR=57.148) and the preoperative dialysis time of recipients ≥ 12 months ($P=0.060$, OR=15.060) were independent risk factors for DGFdevelopment.

Conclusion: The independent risk factors for DGF are the cause of brain death, the terminalcreatinine level, and the preoperative dialysis time.

Keywords: donation after cardiac death kidney transplantation delayed graft function risk factor

收稿日期 2012-04-23 修回日期 网络版发布日期

DOI: 10.3969/j.issn.1672-7347.2012.10.013

基金项目:

通讯作者: 明英姿,Email:myz_china@yahoo.com.cn

作者简介: 邵明杰,硕士研究生,主要从事肝胆外科及器官移植的研究。

作者Email: myz_china@yahoo.com.cn

参考文献:

1. Halloran PF, Hunsicker LG. Delayed graft function: state of theart, November 10-11, 2000. Summit meeting, Scottsdale, Arizona,USA [J]. Am J Transplant, 2001, 1(2): 115-120.
2. Ojo AO, Wolfe , Held PJ, et al. Delayed graft function: risk factorsand implications for renal allograft survival [J]. Transplantation, 1997,63(7): 968-974.
3. Quiroga I, McShane P, Koo DDH, et al. Major effects of delayedgraft function and cold ischaemia time on renal allograft survival [J]. Nephrol Dial Transplant, 2006, 21(6): 1689-1696.
4. Hernández D, Rufino M, Armas S, et al. Retrospective analysis ofsurgical complications following cadaveric kidney transplantation in the modern transplant era [J]. Nephrol Dial Transplant, 2006, 21(10): 2908-2915.

扩展功能

本文信息

► Supporting info

► PDF(794KB)

► [HTML全文]

► 参考文献[PDF]

► 参考文献

服务与反馈

► 把本文推荐给朋友

► 加入我的书架

► 加入引用管理器

► 引用本文

► Email Alert

► 文章反馈

► 浏览反馈信息

本文关键词相关文章

► 心脏死亡器官捐献(DCD)

► 肾移植

► 肾功能延迟恢复(DGF)

► 危险因素

本文作者相关文章

► 邵明杰

► 叶启发

► 明英姿

► 余兴国

► 刘洪

► 叶少军

► 牛英

PubMed

► Article by SHAO Mingjie

► Article by YE Qifa

► Article by MING Yingzi

► Article by SHE Xingguo

► Article by LIU Hong

► Article by YE Shaojun

► Article by NIU Ying

5. Sánchez-Fructuoso A, Sánchez DP, Vidas MM, et al. Nonheart beatingdonors [J]. Nephrol Dialysis Transplantation, 2004, 19(3): 26-31.
6. Johnston O, O'Kelly P, Spencer S, et al. Reduced graft function (with orwithout dialysis) vs immediate graft function—a comparison of longtermrenal allograft survival [J]. Nephrol Dial Transplant, 2006, 21(8):2270-2274.
7. 明英姿, 叶启发, 邵明杰, 等. 心脏死亡供者肾移植48例临床分析 [J]. 中南大学学报: 医学版, 2012, 37(6): 598-605.MING Yingzi, YE Qifa, SHAO Mingjie, et al. Clinical analysis of 48cases of kidney transplantation from cardiac death donors [J]. Journalof Central South University. Medical Science, 2012, 37(6): 598-605.
8. Perico N, Cattaneo D, Sayegh MH, et al. Delayed graft function inkidney transplantation [J]. Lancet, 2004, 364(9447): 1814-1827.
9. Locke JE, Segev DL, Warren DS, et al. Outcomes of kidneysfrom donors after cardiac death: implications for allocation andpreservation [J]. Am J Transplant, 2007, 7(7): 1797-1807.
10. Chapman J, Bock A, Dussol B, et al. Follow-up after renaltransplantation with organs from donors after cardiac death [J]. TransplInt, 2006, 19(9): 715-719.
11. Rengel M, Kanter J, Puerta M, et al. Kidney transplantation with graftsfrom non-heart-beating donors [J]. Transplant Proc, 2006, 38(3):890-891.
12. Boom H, Mallat MJ, de Fijter JW, et al. Delayed graft functionin uences renal function, but not survival [J]. Kidney Int, 2000, 58(2):859-866.
13. Shoskes DA, Cecka JM. Deleterious e ects of delayed graft function incadaveric renal transplant recipients independent of acute rejection [J]. Transplantation, 1998, 66(12): 1697-1701.
14. Pfaff WW, Howard RJ, Patton PR, et al. Delayed graft function afterrenal transplantation [J]. Transplantation, 1998, 65 (2): 219-223.
15. Rodrigo E, Ruiz JC, Pinera C, et al. Creatinine reduction ratio on posttransplantday two as criterion in defining delayed graft function [J]. Am J Transplant, 2004, 4(7): 1163-1169.
16. Humar A, Ramcharan T, Kandaswamy R, et al. Risk factors for slowgraft function after kidney transplants: a multivariate analysis [J]. ClinTransplant, 2002, 16(6): 425-429.
17. Farney A, Singh RP, Stra a RJ, et al. Experience in renal and extrarenaltransplantation with donation after cardiac death donors with selective use of extracorporeal support [J]. J Am Coll Surg, 2008, 206(5): 1028-1037.
18. Ledin H, Bonvoisin C, Weekers L, et al. Results of kidneytransplantation from donors after cardiac death [J]. Transplant Proc, 2010, 42(7): 2407-2414.
19. Kokkinos C, Antcliffe D, Nanidis T, et al. Outcome of kidneytransplantation from nonheart-beating versus heart-beating cadavericdonors [J]. Transplantation, 2007, 83(9): 1193-1199.
20. Barlow AD, Metcalfe MS, Johari Y, et al. Case-matched comparisonof long-term results of nonheart beating and heartbeating donor renaltransplants [J]. Br J Surg, 2009, 96(6): 685-691.
21. Patel SJ, Duhart BT Jr, Krauss AG, et al. Risk factors and consequencesof delayed graft function in deceased donor renal transplant patientsreceiving antithymocyte globulin induction [J]. Transplantation, 2008,86(2): 313-320.
22. Quiroga I, McShane P, Koo DD, et al. Major effects of delayed graftfunction and cold ischaemia time on renal allograft survival [J]. Nephrol Dial Transplant, 2006, 21(6): 1689-1696.
23. Peeters P, Terryn W, Vanholder R, et al. Delayed graft function in renaltransplantation [J]. Curr Opin Crit Care, 2004, 10(6): 489-498.
24. Moreira P, Sa H, Figueriredo A, et al. Delayed renal graft function: riskfactors and impact on the outcome of transplantation [J]. TransplantProc, 2011,43(1):100-105.
25. Farney AC, Hines MH, al-Geizawi S, et al. Lessons Learned from a single center's experience with 134 donation after cardiac death donorkidney transplants [J]. J Am Coll Surg, 2011, 212(4): 440-451.
26. Kootstra G, Daemen JH, Oomen AP. Categories of non-heart-beatingdonors [J]. Transplant Proc, 1995, 27(5): 2893-2894.
27. Stra a RJ, Rohr MS, Sundberg AK, et al. Intermediate-term outcomeswith expanded criteria deceased donors in kidney transplantation: aspectrum or specter of quality? [J]. Ann Surg, 2006, 243(5): 594-601.

本刊中的类似文章

1. 谭红专; 周价; 李硕颀; 张继海; .115对胃癌病例对照研究[J]. 中南大学学报(医学版), 2002,27(4): 379-
2. 谢续标, 蓝恭斌, 彭龙开, 彭风华, 王彧, 方春华, 聂曼华.乙肝/丙肝阳性供肾移植临床观察[J]. 中南大学学报(医学版), 2009,34 (03): 259-263
3. 张卫茹1, 周成2, 谢晋良2, 陈本美3, 昌兰4.(英文)肾移植患者血清非对称二甲基精氨酸水平变化与内皮功能改善的关系[J]. 中南大学学报(医学版), 2009,34(04): 289-294
4. 黄柏胜, 罗奇志, 李立新, 梅冰, 邹义洲, 郭力群, 余平.湖南以汉族肾移植学堂报 (医学版), 2006. 31 (04): 479-482
5. 陈湘, 刘海涛, 周成, 谢晋良, 齐萍, 肖俊威.半肋腹腔镜洁体取肾的临床观察 [J]. 中南大学学报(医学版), 2006, 31(06): 911-913
6. 薛武军, 宋勇, 田普训, 丁小明, 潘晓鸣, 燕航, 侯军, 冯新顺, 项和立, 田晓辉, 任丽.158例亲属活体肾移植的临床研究[J]. 中南大学学报(医学版), 2009,34(09): 867-873
7. 凌光辉1, 曾妮2, 刘家军3, 彭佑铭1, 段绍斌1, 夏运成1, 刘虹1, 刘映红1, 李军1, 李瑛1, 孙林1, 刘伏友1.5 100例体外循环心脏手术后急性肾损伤的因素分析 [J]. 中南大学学报(医学版), 2009,34(09): 861-866
8. 周成1, 刘海涛2, 周辉1, 朱向荣1, 丁翔1, 陈志1, 谢晋良1.肾移植后外周血单个核细胞中Foxp3 mRNA的表达[J]. 中南大学学报(医学版), 2009,34(09): 874-878
9. 金湘东1, 代丽萍2, 3, 张建营2, 3, 张校辉2, 3, 王鹏2, 3, 聂铁飞2, 3, 王平2, 3, 徐学琴2, 3, 王凯娟2, 3.河南省农村地区胃癌危险因素的病例对照家系研究[J]. 中南大学学报(医学版), 2007,32(05): 782-785
10. 彭龙开, 谢续标, 彭风华, 王彧, 姜奕, 蓝恭斌, 方春华, 聂曼华.他克莫司替换环孢素A延缓慢性移植肾肾病进展的临床研究[J]. 中南大学学报(医学版), 2007,32(01): 59-62
11. 王峻, 刘颖娴, 李向平, 彭道泉, 谭峥, 刘鸿敏, 秦英楠, 薛彦琼.组织蛋白酶L与冠心病及其危险因素的相关性[J]. 中南大学学报(医学版), 2009,34(02): 130-134

12. 李新华¹, 廖兵荣^{1,2}, 刘健³, 谭红专¹, 黄文繁⁴, 克瓦库¹, 刘薇¹, 黄昕¹, 文师吾¹, 5.长沙和深圳市儿童肥胖症患病率与危险因素研究[J]. 中南大学学报(医学版), 2010,35(1): 11-16
13. 王浩, 李硕颀*, 张磊, 张静, 戴伟. 湖南省鼻咽癌非病毒影响因素的条件logistic回归分析[J]. 中南大学学报(医学版), 2005,30(3): 356-357
14. 林国强^{1,*},蒋海河¹,李迎秋².冠心病患者血浆血管性血友病因子、可溶性E-选择素的变化及意义[J]. 中南大学学报(医学版), 2005,30(4): 399-402
15. 欧迪鹏, 杨连粤*, 黄耿文, 陶一明, 丁翔, 常志刚.肝细胞癌术后复发转移相关危险因素分析[J]. 中南大学学报(医学版), 2005,30(5): 540-543

Copyright by 中南大学学报(医学版)