

论著

先天性心脏病环境影响因素的病例对照研究

欧阳娜¹, 罗家有¹, 杜其云², 刘智昱²

1.中南大学公共卫生学院儿少卫生与妇幼保健系,长沙 410078; 2.湖南省妇幼保健院保健部,长沙 410008

摘要:

目的:探讨环境因素与先天性心脏病的关系。方法:采用以医院为基础的1:2病例对照研究,对先天性心脏病患儿和正常儿母亲(123名病例和246名对照)进行问卷调查。采用卡方检验和logistic回归分析,筛选先天性心脏病相关的环境影响因素。结果:多因素logistic回归模型分析结果表明:孕妇职业危险因素接触史(OR=4.10)、孕妇孕前患慢性病史(OR=5.95)、孕妇异常生育史(OR=6.27)、孕早期感冒(OR=2.07)等增加胎儿患先天性心脏病的风险,而孕早期经常吃肉鱼虾蛋类(OR=0.18)、孕期补充维生素和微量元素(OR=0.35)、孕早期经常喝豆奶与牛奶(OR=0.23)等可以减少胎儿患先天性心脏病的风险。结论:先天性心脏病的发生与多种环境因素有关,应加强环境因素的干预,以减少先天性心脏病的发生。

关键词:先天性心脏病;环境因素;病例对照研究

Case-control study on environmental factors in congenital heart disease

OUYANG Na¹, LUO Jiayou¹, DU Qiyun², LIU Zhiyu²

1. Department of Maternal and Child Health, School of Public Health, Central South University, Changsha 410078; 2. Department of Health Care, Maternal and Child Health Care Hospital of Hunan Province, Changsha 410008, China

Abstract:

Objective To explore the relation between environmental factors and the occurrence of congenital heart disease (CHD). Methods A hospital-based case-control study was conducted. Mothers of 123 patients with congenital heart disease and 246 normal newborns were interviewed with standardized questionnaires. Chi-square test and logistic regression models were performed to analyze the influencing factors. Results As shown in multivariable logistic model, gravida with occupational exposure (OR=4.10), or gravida with chronic diseases during progestational pregnancy (OR=5.95), gravida with abnormal childbearing history (OR=6.27), and gravida catching a cold in the early stage of pregnancy (OR=2.07) would increase the risk of CHD. On the contrary, eating meat, egg (OR=0.18) and milk (OR=0.23), and taking multivitamin and microelement (OR=0.35) during the pregnancy reduced the risk of CHD. Conclusion The risk of the offspring developing CHD is associated with gravida's exposure to many environmental factors during pregnancy. It is time to strengthen the intervention measures to reduce the occurrence of CHD.

Keywords: congenital heart disease; environmental factor; case-control study

收稿日期 2010-10-28 修回日期 网络版发布日期

DOI: 10.3969/j.issn.1672-7347.2011.

基金项目:

通讯作者: 罗家有, E-mail:jiayouluo@126.com

作者简介: 欧阳娜, 硕士研究生, 主要从事公共卫生与妇幼保健研究。

作者Email: jiayouluo@126.com

参考文献:

- [1] Sadowski S L. Congenital cardiac disease in the newborn infant: past, present, and future [J]. Crit Care Nurs Clin North Am, 2009, 21(1): 37-48.
- [2] Wang X, Zhang G, Liu F, et al. Prevalence of human parvovirus B19 DNA in cardiac tissues of patients with congenital heart diseases indicated by nested PCR and in situ hybridization [J]. J Clin Virol, 2004, 31(1): 20-24.
- [3] 付楚慧, 罗家有, 姚宽保, 等. 孕早期心理健康状况与先天性心脏病的关系 [J]. 中国心理卫生杂志, 2009, 23(6): 398-399.
- FU Chuhui, LUO Jiayou, YAO Kuai Bao, et al. A case-control study on relationship between maternal mental health status during early pregnancy and congenital heart diseases [J]. Chinese Mental Health J, 2009, 23(6): 398-399.
- [4] Drenthen W, Boersma E, Balci A, et al. Predictors of pregnancy complications in women with congenital heart disease [J]. Eur Heart J, 2010, 31(17): 2124-2132.
- [5] Kjaer D, Horvath-Puhó E, Christensen J, et al. Use of phenytoin, phenobarbital, or diazepam during pregnancy and risk of congenital abnormalities: a case-time-control study [J]. Pharmacoepidemiol Drug Saf, 2007, 16(2): 181-188.
- [6] 刘凤, 陶芳标, 严双琴, 等. 父母环境因素暴露于胎儿先心病病因关系探讨 [J]. 临床儿科杂志, 2009, 27(5): 424-428.
- LIU Feng, TAO Fangbiao, YAN Shuangqin, et al. Parental environmental exposure and occurrence of congenital heart diseases in their children [J]. J Clin Pediatr, 2009, 27(5): 424-428.
- [7] 吴泰顺, 黎松林, 陈树培, 等. 围产儿先天性外部畸形的1:2配比病例对照研究 [J]. 中华预防医学杂志, 2002, 36(1): 19-21.
- WU Taishun, LI Songlin, CHEN Shupe, et al. A 1:2 matched case-control study on congenital external malformation during perinatal period [J]. Chin J Prev Med, 2002, 36(1): 19-21.
- [8] Cresci M, Foffa I, Ait-Ali L, et al. Teratogenic risk of low level ionizing radiation. Congenital heart disease in infant

扩展功能

本文信息

- Supporting info
- PDF(973KB)
- [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

- 先天性心脏病; 环境因素; 病
- 研究

本文作者相关文章

PubMed

[J] . *Recenti Prog Med*, 2009,100(9): 410-413.

[9] 肖雪琴,邱建平,刘跃梅,等. 环境因素(气候)对先天性心脏病患病率的影响 [J] . *赣南医学院学报*, 2008, 28(4): 544-545.

XIAO Xueqin,QIU Jianping,LIUYuemei,et al.The influence of environmental factor(climate) on the prevalence of congenital heart disease [J] . *Journal of Gannan Medical University*, 2008, 28(4): 544-545.

[10] Källén B A, Otterblad Olausson P. Maternal drug use in early pregnancy and infant cardiovascular defect [J] . *Reprod Toxicol*, 2003, 17(3): 255-261.

[11] Abu-Sulaiman R M, Subaih B. Congenital heart disease in infants of diabetic mothers: echocardiographic study [J] . *Pediatr Cardiol*, 2004, 25(2): 137-140.

[12] Mönig H, Hensen J, Lehnert H. Thyroid disorders and pregnancy [J] . *Internist (Berl)*, 2010, 51(5): 620-624.

[13] Van Beynum I M, Kapusta L, Bakker M K, et al. Protective effect of periconceptual folic acid supplements on the risk of congenital heart defects: a registry-based case-control study in the northern Netherlands [J] . *Eur Heart J*, 2010, 31(4): 464-471.

[14] Duffy J Y, Overmann G J, Keen C L, et al. Cardiac abnormalities induced by zinc deficiency are associated with alterations in the expression of genes regulated by the zinc-finger transcription factor GATA-4 [J] . *Birth Defects Res B Dev Reprod Toxicol*, 2004, 71(2): 102-109.

本刊中的类似文章