

## 临床研究

# 中药黄芪颗粒对儿童急性柯萨奇病毒感染导致病毒性心肌炎免疫调节的研究

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**摘要:**目的 探讨儿童急性柯萨奇病毒感染阶段病毒性心肌炎 Th1/Th2 失衡和中药黄芪颗粒治疗的效果。  
**方法** 按随机抽样设儿童急性柯萨奇病毒感染阶段病毒性心肌炎治疗 1 组, 治疗 2 组与正常对照组, 通过检查血清 IFN- $\gamma$ 、IL-4、cTnI、cTnT 水平及 ECG, 间接了解此类心肌炎 Th1/Th2 失衡和心肌损伤状态, 观察用中药黄芪颗粒后 Th1/Th2 平衡恢复与心肌炎治愈率得到提高的变化。**结果** 治疗前治疗 1、2 组 IFN- $\gamma$  水平低于对照组 ( $P < 0.05$ ), IL-4 水平高于对照组 ( $P < 0.05$ ), 显示 Th1/Th2 免疫优势向 Th2 倾斜, 用黄芪颗粒治疗后, 治疗 2 组 IFN- $\gamma$  上调, IL-4 下移达到对照组水平 ( $P$  均  $> 0.05$ ), Th1/Th2 回到平衡, 异常 ECG 消失率与 cTnI、cTnT 阴性转换率比治疗 1 组高 ( $P$  均  $< 0.01$ )。**结论** Th1/Th2 失衡也是该类心肌炎的表明用中药黄芪颗粒调节有效, 心肌炎治愈率因此获得提高。

**关键词:** 儿童; 急性柯萨奇病毒感染阶段; 病毒性心肌炎; Th1/Th2 失衡; IFN- $\gamma$ ; IL-4; 黄芪颗粒

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## Treatment of Viral Myocarditis of Acute CVI Children by Huangqi Granules

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**Abstract Objective:** To investigate the effect of Huangqi Granules on viral myocarditis children of acute coxsackie virus infection (CVI) at infected stage, in which the mechanism of Th1/Th2 imbalance was explored. **Method:** The first experimental group was randomly arranged in acute CVI children with viral myocarditis; the second one was added the treatment of Huangqi Granules to the ill children; the third one was the normal control group. To determine the level of serum IFN- $\gamma$ , IL-4, cTnI, cTnT and examine children's ECG were to indirectly understand the condition of Th1/Th2 imbalance and impairment of heart muscles. Finally, improvements in recovering Th1/Th2 balance and curative rate of myocarditis after treating by Huangqi Granules could be observed. **Results:** Before treatment, serum IFN- $\gamma$  levels in the first and second group were lower than that in control group ( $P < 0.05$ ), IL-4 levels higher than control group ( $P < 0.05$ ), and immunodominance tended to be Th2; after treated by Huangqi Granules, the second group showed that serum IFN- $\gamma$  levels rose and IL-4 levels decreased to the levels of the control group ( $P > 0.05$ ) and meanwhile Th1/Th2 recovered the balance; elimination coefficient of the abnormal ECG and negative-positive converting rate of cTnI and cTnT in the second group were higher than those in the first group ( $P < 0.01$ ). **Conclusion:** The imbalance of Th1/Th2 is the cause of this kind of myocarditis and the regulating effect of Huangqi Granules is great in increase its curative rate.

**Keywords** children, acute CVI, viral myocarditis, Th1/Th2 imbalance, Huangqi Granules

儿童病毒性心肌炎非常复杂,为了诊断明确,治疗方便,近来有人按病程进展分类,分成了3个发病机理和病理变化不相同的类型<sup>[1,2]</sup>。其中急

性病毒感染阶段病毒性心肌炎发病率最高,关注较少,我们以常见的儿童急性柯萨奇病毒感染阶段病毒性心肌炎作为切入点,进行了Th1/Th2免