

论文

静注卡介苗建立免疫性胰岛素抵抗模型

郭欲晓;罗谋伦;林志彬

北京大学基础医学院药理学系, 北京 100083

摘要:

目的建立并考察卡介苗诱导的胰岛素抵抗动物模型。方法用正糖钳实验方法及其他生化检验方法测定卡介苗每鼠10 mg iv后大鼠血糖、葡萄糖耐量、血清TNF-α、胰岛素刺激的葡萄糖代谢速率及其他生化指标的变化。结果卡介苗iv后第2,4及8周,动物的葡萄糖耐量均受到损伤,胰岛素刺激的葡萄糖代谢速率显著下降,血清TNF-α含量升高。结论卡介苗iv可造成稳定的胰岛素抵抗模型,其造模机理可能与升高大鼠血清TNF-α含量有关。

关键词: 卡介苗 胰岛素抵抗 正糖钳 糖尿病

ESTABLISHMENT OF IMMUNE INSULIN RESISTANCE MODEL IN THE RATS BY IV INJECTION OF BCG

GUO Yu-xiao; LUO Mou-lun; LIN Zhi-bin

Abstract:

AIMTo observe the stability of BCG-induced insulin resistance model. METHODSThe glucose tolerance, serum glucose, FFA, insulin, triglycerides, cholesterol, TNF-α and ALT level were measured. The change of GDR was measured by euglycemic clamp in model rats after given iv BCG 2, 4 and 8 weeks. RESULTSAfter 2, 4 and 8 weeks, the GIR and glucose tolerance of the animals decreased significantly. After 2, 4 and 8 weeks, BCG infusion resulted in a pronounced reduction in glucose tolerance and insulin-stimulated glucose disposal rate [GDR=GDR: (29±6) vs (13±7) mg·kg⁻¹·min⁻¹ 2 weeks; (29±6) vs (11±7) mg·kg⁻¹·min⁻¹ 4 weeks and (23±3) vs (16±3) mg·kg⁻¹·min⁻¹ 8 weeks, respectively, P<0.01]. BCG infusion resulted in a pronounced increase in the weights of the liver [(6.2±0.9) vs (8.2±1.3) g, P<0.05] and spleens [(0.51±0.11) vs (1.4±0.4) g, P<0.01]. The histo-pathological results showed that BCG infusion resulted severe inflammation in the livers and spleens and the ratio of β/α in pancreas increased. The serum levels of triglyceride, FFA and glucose were unchanged, but the level of serum TNF-α [(543±60) vs (759±137) pg·mL⁻¹, P<0.05] and insulin [(31±5) vs (36±5) μ·L⁻¹, P>0.05] increased. CONCLUSIONThis novel model of immune insulin resistance is completely and constantly established.

Keywords: insulin resistance euglycemic clamp diabetes BCG

收稿日期 修回日期 网络版发布日期

DOI:

基金项目:

通讯作者: 林志彬

作者简介:

参考文献:

本刊中的类似文章

文章评论 (请注意:本站实行文责自负, 请不要发表与学术无关的内容!评论内容不代表本站观点.)

扩展功能

本文信息

- ▶ Supporting info
- ▶ PDF(137KB)
- ▶ [HTML全文]
- ▶ 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

- ▶ 卡介苗
- ▶ 胰岛素抵抗
- ▶ 正糖钳
- ▶ 糖尿病

本文作者相关文章

- ▶ 郭欲晓
- ▶ 罗谋伦
- ▶ 林志彬

PubMed

- ▶ Article by
- ▶ Article by
- ▶ Article by

反
馈

邮箱地址

人			
反馈标题	<input type="text"/>	验证码	<input type="text" value="0373"/>