

### 论文

## 经外周静脉与经门静脉灰阶超声造影对兔肝VX2瘤血供的对比研究

肖静, 李杰, 魏芸, 时丹丹

山东大学齐鲁医院超声科, 济南 250012

摘要:

目的 应用经外周静脉与经门静脉灰阶超声造影分析肝恶性肿瘤的血供特点。方法 分别经耳缘静脉和门静脉主干对12只荷VX2瘤新西兰大白兔快速注射超声造影剂SonoVue TM, 应用CnTi低机械指数实时灰阶造影匹配成像技术, 分析VX2瘤的血供特点及其造影增强效应。结果 对12只大白兔的12个肿瘤行外周静脉造影, VX2瘤强化呈典型的“快进快出”型, 动脉期肿瘤结节快速增强, 非动脉期肿瘤结节内造影剂迅速廓清。对12只大白兔的22个肿瘤行门静脉造影, 其增强方式分为4种类型: ①弥漫增强型7例, 表现为肿瘤弥漫性增强; ②门静脉分支型3例, 表现为肿瘤内出现门静脉分支影; ③周边增强型5例, 表现为肿瘤周边不规则增强, 肿瘤边界变得模糊; ④无明显增强型7例, 表现为肿瘤内无明显强化。结论 经外周静脉和经门静脉灰阶超声造影可观察肝肿瘤不同的血供特点, 为病灶的定性诊断及个性化治疗提供有价值的信息。

关键词: 超声检查; 造影剂; 肝肿瘤; 门静脉造影术

### The comparison study of the blood supply of hepatic VX2 tumor by contrast-enhanced ultrasonography through the peripheral vein and portal vein

XIAO Jing, LI Jie, WEI Yun, SHI Dan dan

Department of Ultrasound, Qilu Hospital of Shandong University, Jinan 250012, China

Abstract:

Objective To evaluate the blood supply of hepatic tumor by contrast-enhanced ultrasonography through peripheral and portal veins. Methods An in vivo model was studied using SonoVueTM and low mechanical index (MI) real-time gray-scale contrast-enhanced ultrasonography. SonoVueTM was rapidly injected into 12 New Zealand white rabbits with hepatic VX2 tumor through the marginal ear vein and the main trunk of the portal vein respectively. The characteristic of blood supply and enhancement pattern were analyzed. Results SonoVueTM was administrated into 12 rabbits with 12 tumors through the peripheral vein: the tumors showed hyperechoic enhancement in the arterial phase and hypoechoic enhancement in the postarterial phase. Ultrasonographic portography was performed in 12 rabbits with 22 tumors: seven tumors enhanced diffusely; three tumors showed the branches of the portal vein; five tumors showed peripheral irregular enhancement; seven tumors showed no obvious enhancement. Conclusion Contrast-enhanced ultrasonography through the peripheral vein and portal vein can manifest the blood supply of hepatic tumor, so it may be useful in the qualitative diagnosis and individual treatment of hepatic tumor.

Keywords: Ultrasonography; Contrast media; Liver neoplasms; Portography

收稿日期 2010-01-14 修回日期 网络版发布日期

DOI:

基金项目:

山东省自然科学基金(Y2008C23), 山东省优秀中青年科学家科研奖励基金(2006BS03054)。

通讯作者: 李杰(1966-), 男, 博士, 主任医师, 主要从事超声造影及介入超声学研究。 E-mail: jielijl@hotmail.com

作者简介: 肖静(1984-), 女, 硕士研究生, 主要从事超声造影及介入超声学研究。

作者Email:

参考文献:

扩展功能

本文信息

Supporting info

PDF(796KB)

[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

超声检查; 造影剂; 肝肿瘤; 门静脉造影术

本文作者相关文章

PubMed

