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# Investigation of HBV-DNA in peripheral blood mononuclear cells and hepatocytes with molecular hybridization

Cui Xiaohong, Li Mengdong, Gu Changhai (Department of Infectious Diseases, Southwest Hospital, Third Military Medical College, Chongqing, 630038)

**Abstract** The existence of HBV-DNA in the mononuclear cells of peripheral blood and in the serum of 61 patients with HBV infection was determined with southern blot and dot blot hybridization, and that in the liver tissue of 31 patients out of the 61 with southern blot and in situ hybridization. The positive rate of HBV-DNA in the serum, mononuclear cells and hepatocytes was 26.2% (16/61), 24.6% (15/61) and 44.8% (13/31) respectively. There was no concordance of the existence of HBV-DNA in the serum, peripheral mononuclear cells and hepatocytes in an individual. For example, HBV-DNA was absent in the serum but present in mononuclear cells and hepatocytes in 11 cases. In fact, peripheral mononuclear cells can serve as the reservoir for HBV to replicate. It cannot be denied that HBV can replicate in an individual even though HBV-DNA is negative in the serum.

**Key words** mononuclear cell; DNA Viruses; hepatitis B virus; molecular hybridization

# 腺泡型肝细胞癌一例报告

周子成 于冬梅[△] 江正辉 (第三军医大学西南医院 消化科) 630038

**患者**男，50岁。因间歇性上腹痛1年加重3周于1990年4月23日入院。年前始感间歇性上腹隐痛，空腹明显，餐后缓解。3周前上腹呈牵扯样胀痛或剧痛，后转移至右肋部，痛似断裂样，伴恶心、呕吐胃内容，饱胀，体重略减。

查体：一般情况好，体重67kg。蜘蛛痣（-），肝掌(±)，巩膜无黄染。左锁骨上触及1个1cm×1cm大扁平结节，质中，光滑。无腹壁静脉曲张。肝肋下4cm，剑下7cm，质中偏硬，表面有结节，轻度压痛及叩痛，肝区血管杂音（-）。脾未及。腹水征（-）。无肝炎史。无饮酒嗜好。

实验室及其他检查：血常规正常。HBsAg（-），抗-HBe(+)，抗-HBc（+）。ALT<35IU/L，GGT 154 IU/L，AIP157IU/L，LDH 598 IU/L。A/G=42.4/27.5，γ-球蛋白29.4%。空腹胆酸>4000μg/dl。$\alpha_1$AT 3.6μmol/min/ml，AFP<31ng/L。B超示左肝外叶有6.3cm×4.3cm多个团块互相融合，边界欠清，有完整晕圈，右肝前叶4.3cm×3.9cm稍增强，有晕圈块影。CT示肝脏散在多发性低密度占位病灶，最大直径约5cm，肝右叶部分病灶融合成片。胃镜诊断慢性浅表性胃炎。

入院后病情进行性加重，相继出现发热，黄疸，消瘦，衰竭，肝脏增大至右下腹、质硬，触痛明显，腹水征不显，腹穿未能抽出腹水。于同年7月7日死于全身衰竭，肾衰，消化道出血。

死后肝穿病理检查示大部分区域肝细胞呈浊肿，胞浆疏松，肝细胞及毛细胆管内有胆汁淤积，部分区域见有片状坏死，在纤维组织间质或坏死边缘，见有呈腺样结构的组织，或呈菊花样排列，瘤细胞体积小，境界清楚，核圆形稍大、浓染，核仁不明显。诊断：腺泡型肝细胞癌（图1、2）。

## 讨 论

腺泡型肝细胞癌（Acinar liver cell carcinoma）极少见。临床不易诊断，主要靠病理检查。在一

[△] 本院病理科

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# Effects of nimodipine on the changes of calcium, magnesium and calmodulin contents after cerebral ischemia in rats

Chen Kangning, Li Lushi, Zhen Caimei (Department of Neurology, Southwest Hospital, Third Military Medical College, Chongqing, 630038)

**Abstract** The changes of calcium and magnesium content in brain tissue ($B_{Ca}$, $B_{Mg}$) and in the mitochondria ($M_{Ca}$, $M_{Mg}$) and calmodulin content in the cortex and hippocampus ($C_{CaM}$, $H_{CaM}$) were determined in the rats with 4-vessel-ligation cerebral ischemia. And then the therapeutic effects of nimodipine were observed during ischemic and reperfusion stages of the brain. It was found that $B_{Mg}$ and $B_{Mg}$ were decreased and $C_{CaM}$ $H_{CaM}$ increased during both the ischemic and reperfusion stages and $B_{Ca}$ and $M_{Ca}$ were increased during the reperfusion stage. The fact that calcium content was only increased during the reperfusion stage indicates that the influx of calcium plays an important role to precipitate injury during the reperfusion stage. Adminstration of nimodipine could prevent the increase of calcium and calmodulin and the decrease of magnesium after cerebral ischemia.

**Key words** cerebral ischemia; reperfusion; brain; mitochondrium; calcium; magnesium; calmodulin; nimodipine

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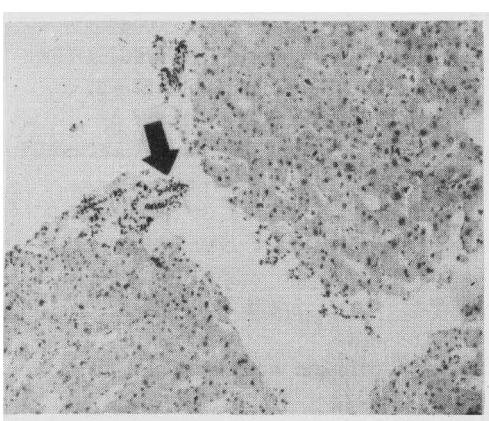


图1 腺泡型肝细胞癌
癌细胞呈腺泡样结构。箭头所示。HE×100

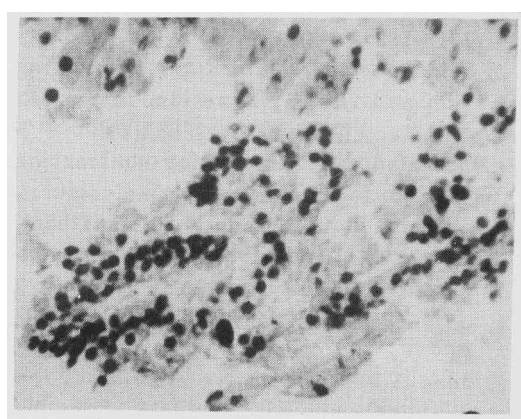


图2 腺泡型肝细胞癌
癌细胞体积较小，核圆形，浓染。HE×450稿

组240例肝细胞癌的病理组织类型中仅见1例〔Tumor 1987; 73(5):507～12〕。其病理组织学特点是以小型腺样结构为主。癌细胞体积较小，境界清楚，核圆形稍大，浓染，核仁不明显。腺泡样或菊花样结构主要由癌细胞围绕扩张毛细胆管排列而构成。本例临床经过险恶，肝增大显著，剧痛而不破，腹水不显。此与病理改变有何联系尚不清楚。

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