

肝細胞癌及び境界病変の悪性度と結節内血行の関連 及びその生物学的性状に関する研究

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Correlation between the intranodular blood supply and the grade of malignancy of hepatocellular nodules associated with liver cirrhosis

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Research Abstract

The purpose of this study is to analyze the correlation between intranodular blood supply evaluated by CT during arterial portography (CTAP) and CT during hepatic arteriography (CTA) and the grade of malignancy of hepatocytic nodules associated with liver cirrhosis based on the classification by Liver Cancer Study Group of Japan, and to evaluate the appropriateness of the diagnosis of grade of malignancy by CTAP and/or CTA in comparison with the natural course of the nodules. CTAP and CTA findings were compared to the histological diagnosis among 201 nodules in 139 cirrhotic patients. On CTAP, adenomatous hyperplasia (AH) mainly demonstrated almost the same portal supply relative to the surrounding liver (group A), atypical Ahs (AAH) decreased portal flow (group B), well-differentiated hepatocellular carcinomas (wd-HCC) partial absence of portal supply (group C), and moderately or poorly differentiated HCCs (mp-HCC) absence of portal supply (group D), respectively. The ratios of the above groups in each histological groups were statistically significant compared to those in the other groups. CTA findings were also divided into four groups, the same arterial supply (group a), decreased arterial supply (group b), partially increased arterial supply (group c), and increased arterial supply (group d). There was a tendency that Ahs showed group a, AAHs group b, wd-HCCs group c, without statistical significance. All of mp-HCCs demonstrated group d. There was a statistically significant correlation between the four groups and the grades of nodules, in the order of A, B, C, D and a, b, c, d from low to high grade of malignancy. The malignant transformation ratios of the nodules in each groups in 176 nodules were compared. Malignant transformation was defined as more than half of a nodule was stained on CTA or was shown as perfusion defect on CTAP. With increase in grade of malignancy of CTAP findings, malignant transformation ratio was increased. On the other hand, there was a discrepancy between the grade in the groups classified by CTA findings and their prognosis, because, group a includes two different conditions, AH and AAH or wd-HCCs. On the combination of CTAP and CTA, no malignant transformation was seen in the nodules with group A and a, 30% malignant transformation in the nodules with group B or b, and more than 90% malignant transformation in the nodules with type C or type c during 24 months. This result well corresponded with the grade of malignancy diagnosed by CTAP and CTA. The evaluation of blood supply by arteriographic CT was considered to be valuable to estimate the grade of malignancy of these nodules, to make clear human hepatocarcinogenesis, and to determine the treatment method.

▲ Less

Research Products (26 results)

All Other

All Publications (26 results)

- [Publications] Hayashi M, Matsui O, Ueda K, et al.: "Correlation between the blood supply and grade of malignancy of hepatocellular nodules associated with liver cirrhosis" AJR. 172. 969-979 (1999) ▼
- [Publications] Ueda K, Matsui O, Kadoya M, et al.: "Pseudolesion in segment IV of the liver on MRI: prevalence and morphology in 250 cirrhotic livers compared with 250 normal livers" J Comput Assist Tomogr. 23. 63-68 (1999) ▼
- [Publications] Ueda K, Matsui O, Kawamori Y, et al.: "Differentiation of hypervascular hepatic pseudolesions from hepatocellular carcinoma: value of single-level dynamic CT during hepatic arteriography" J Comput Assist Tomogr. 22. 703-708 (1998) ▼
- [Publications] Ueda K, Matsui O, Kadoya M, et al.: "CTAP in Budd-Chiari syndrome: evaluation of intrahepatic portal flow" Abdominal Imaging. 23. 304-308 (1998) ▼
- [Publications] Gabata T, Matsui O, Kadoya M, et al.: "Delayed MR imaging of the liver: correlation of delayed enhancement of hepatic tumors and pathologic appearance" Abdominal Imaging. 23. 309-313 (1998) ▼
- [Publications] 林麻紀子: "肝硬変に伴う肝細胞性結節性病変の画像による悪性度診断に関する研究 動脈内造影剤注入下CTによる結節内血行支配診断の有用性" 金沢大学十全医学会雑誌. 107. 2-15 (1998) ▼
- [Publications] Gabata T, Matsui O, Kadoya M, Yoshikawa J, Ueda K, Nobata K, Kawamori Y, Takashima T. Gallbladder varices: "demonstration of direct communication to intrahepatic portal veins by color Doppler sonography and CT during arterial portography" Abdom Imaging. 22(1). 82-84 (1997) ▼
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- [Publications] Ueda K, Matsui O, Kadoya M, Yoshikawa J, Gabata T, Kawamori Y, Takashima T.: "CTAP in Budd-Chiari Syndrome : Evaluation of Intrahepatic Portal Flow."Abdom Imaging. 23(3). 304-308 (1998) ▼
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