

Archives of Clinical Case Reports

Clinical Image

Advanced Hepatocellular Carcinoma in which Gallbladder Invasion Mimicked Primary Gallbladder Neoplasm

Koji Tamura^{1*}, Toshifumi Gushima², Hiromichi Nakayama¹, Reiko Yoneda³, Yusuke Watanabe¹, Hiroshi Kono¹, Hirofumi Yamamoto¹, Takashi Ueki¹, Masayuki Okido¹ and Hitoshi Ichimiya¹

¹Department of Surgery Hamanomachi Hospital, Fukuoka, Japan

²Department of Hepatology Hamanomachi Hospital, Fukuoka, Japan

³Department of Pathology Hamanomachi Hospital, Fukuoka, Japan

*Address for Correspondence: Koji Tamura, Department of Surgery, Hamanomachi Hospital, 3-3-1 Nagahama, Fukuoka 810-8539, Japan; Tel: +81-92-721-0831; Fax: +81-92-714-3262; E-mail: k-tam@surg1.med.kyushu-u.ac.jp

Received: 22 February 2021; Accepted: 03 March 2021; Published: 04 March 2021

Citation of this article: : Tamura, K., Gushima, T., Nakayama, H., Yoneda, R., Watanabe, Y., Kono, H., Yamamoto, H., Ueki, T., Okido, M., Ichimiya, H. (2021) Advanced Hepatocellular Carcinoma in which Gallbladder Invasion Mimicked Primary Gallbladder Neoplasm. Arch Clin Case Rep, 4(1): 05-07.

Copyright: © 2021 Koji Tamura, et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Authors' contributions: KT and TG contributed to management of the patient. HY, TU and HI supervised management of the patient. RY contributed to the pathological diagnosis. KT, HN, YW and HK contributed to data acquisition. KT contributed to drafting of the manuscript, and the critical revision of the article for important intellectual content. All authors have read and approved the final manuscript.

Case presentation

A 76-year-old Japanese man presenting with epigastric pain was transferred to our hospital for further examination of suspicious gallbladder carcinoma (GBC) with obstructive jaundice. His chief complaint was upper abdominal pain. Physical examination

showed no abnormality except for slight conjunctival icterus. Laboratory examination revealed mild liver dysfunction with negative hepatitis viral markers and elevated CA 19-9 serum levels (156 ng/ml; normal, <37 ng/ml). Abdominal ultrasonography confirmed a

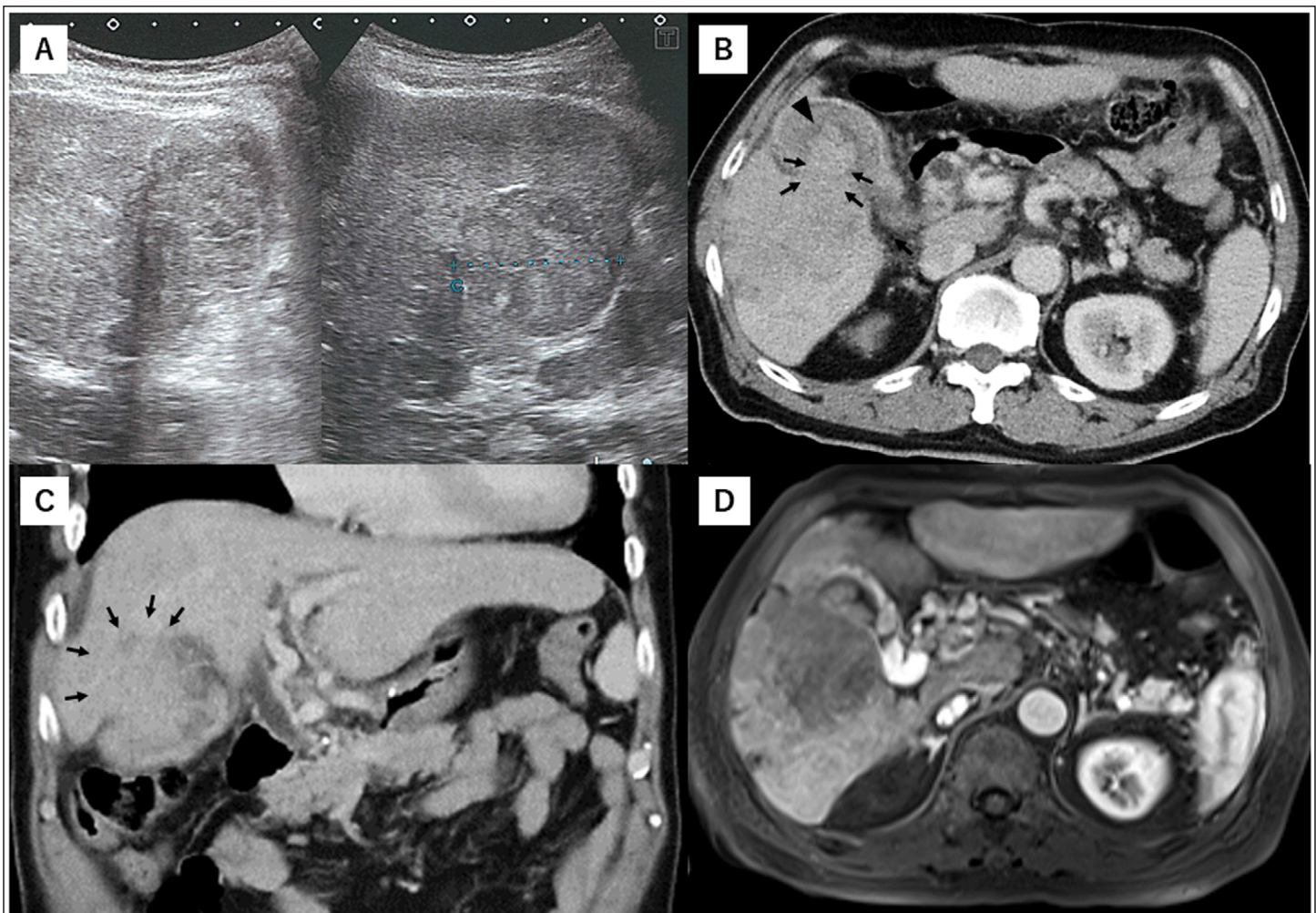


Figure 1: (A) Abdominal ultrasonography of a space-occupying tumor in the gallbladder (GB) (left panel). A 6-cm mass is seen in the right lobe of the liver, which is continuous to the GB tumor (right panel). (B, C) Contrast enhanced computed tomography of an enhanced mass in the GB (arrowhead). A huge liver tumor is seen in the right anterior segment, which is connected to the GB tumor (arrows). Massive portal vein tumor thrombosis and intratumor hemorrhage were also detected. (D) Enhanced magnetic resonance imaging of an enhanced tumor in the GB, which is connected to the liver mass, mimicking liver invasion of GB carcinoma (T2W1).

space-occupying tumor in the GB, which was spreading from the GB bed to the right liver lobe (Figure 1A). Abdominal enhanced computed tomography and magnetic resonance imaging showed an enhanced tumor in the GB with intra-gallbladder hemorrhage (Figure 1 B,D). Additionally, a 6-cm mass was seen in the right anterior segment of the liver with massive portal vein tumor thrombosis and intratumor hemorrhage, which was connected to the GB mass. Because the tumor markers alpha-fetoprotein (40 ng/ml; normal, <10 ng/ml) and PIVKA-II (4363 mAU/ml; normal, <39 mAU/ml) were elevated, hepatocellular carcinoma (HCC) was suspected rather than advanced GBC. A diagnosis of HCC was

made based on percutaneous liver tumor biopsy analysis (Figure 2). The patient subsequently underwent transarterial chemotherapy, then administration of the systemic antitumor agent sorafenib; however, he died 5 months after the diagnosis.

The direct invasion of HCC to extrahepatic organs is rare, and the prognosis of this type of cancer is poor [1-3]. This case mimicked advanced GBC invading the liver, and it was difficult to distinguish the two from imaging findings alone. It should be remembered that advanced HCC occasionally destroys the GB wall, and that percutaneous tumor biopsy is useful to make an accurate diagnosis.

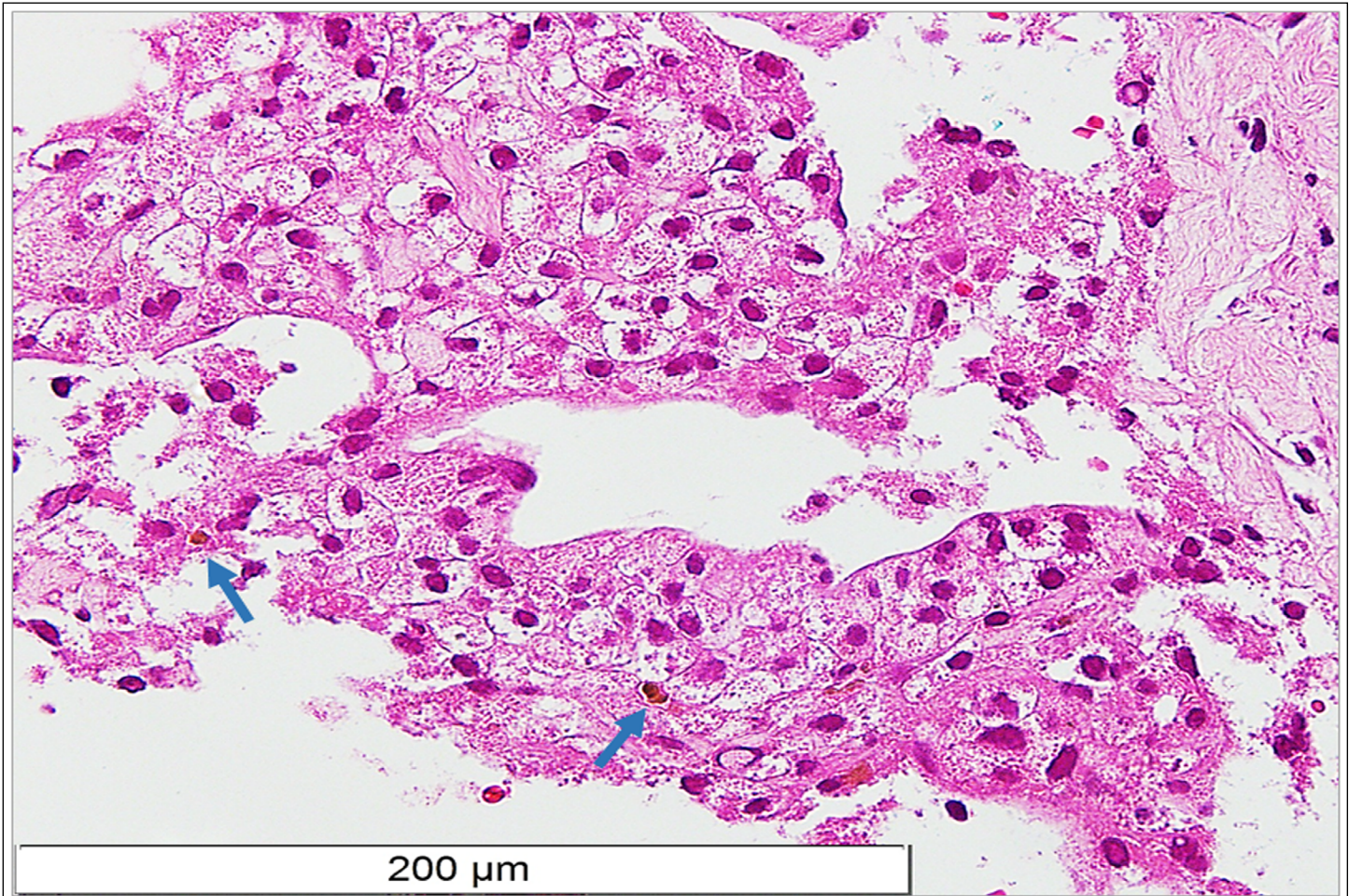


Figure 2: Pathological findings of the percutaneous liver tumor biopsy specimen. Hematoxylin and eosin staining showing large polygonal tumor cells in sheet patterns. Bile production was also seen (arrow).

References

1. Ueno, N., Kanamaru, T., Kawaguchi, K., Tanaka, K., Inoue, K., Idei, Y., et al. (2001) A hepatocellular carcinoma with lymph node metastasis and invasion into the gallbladder: preoperative difficulty ruling out a gallbladder carcinoma. *Oncol Rep*, 8(2): 331-335.
2. Kato, Y., Matsubara, K., Akiyama, Y., Hattori, H., Hirata, A., Yamamoto, T., et al. (2011) Direct biliopancreatoduodenal invasion by hepatocellular carcinoma: report of the first resected case and review of the literature. *Int J Clin Oncol*, 16(4): 421-427.
3. Uemura, S., Namikawa, T., Fujisawa, K., Hanazaki, K. (2020) A case of advanced hepatocellular carcinoma with gallbladder invasion. *Jpn J Clin Oncol*, 50(5): 623-625.