



HOKKAIDO UNIVERSITY

Title	Eccentric Abscess Due to Bile Duct Microperforation Caused by Self-expandable Metal Stent and Neoadjuvant Chemoradiation
Author(s)	Kuwatani, Masaki; Kawamoto, Yasuyuki; Nakamura, Toru
Citation	Clinical Gastroenterology and Hepatology, 14(5), A29-A30 https://doi.org/10.1016/j.cgh.2016.01.013
Issue Date	2016-05
Doc URL	https://hdl.handle.net/2115/65182
Rights	© 2016. This manuscript version is made available under the CC-BY-NC-ND 4.0 license http://creativecommons.org/licenses/by-nc-nd/4.0/
Rights(URL)	https://creativecommons.org/licenses/by-nc-nd/4.0/
Type	journal article
File Information	CGH-D-15-01981_R1.pdf



Eccentric abscess due to bile duct microperforation caused by self-expandable metal stent and neoadjuvant chemoradiation

Short title: Eccentric abscess due to microperforation

Masaki Kuwatani^{1,*}, Yasuyuki Kawamoto¹, Toru Nakamura²

¹Department of Gastroenterology and Hepatology, Hokkaido University Graduate School of Medicine, North 15, West 7, Kita-ku, Sapporo 060-8638, Japan

²Department of Gastroenterological Surgery II, Hokkaido University Hospital, North 15, West 7, Kita-ku, Sapporo 060-8638, Japan

*Address correspondence to: Dr. Masaki Kuwatani, Department of Gastroenterology and Hepatology, Hokkaido University Graduate School of Medicine, North 15, West 7, Kita-ku, Sapporo 060-8638, Japan

E-mail: mkuwatan@med.hokudai.ac.jp (M. Kuwatani)

Telephone: +81-11-716-1161(ext. 5920). FAX: +81-11-706-7867.

Keyword: abscess; microperforation; self-expandable metal stent; neoadjuvant chemoradiation

No conflicts of interest exist for all authors.

A 50-year-old male with a mass in the pancreatic head and icterus was referred to our hospital. Contrast-enhanced computed tomography (CT) revealed a hypovascular mass compressing the superior mesenteric vein in the pancreatic head, and endoscopic ultrasonography-guided fine-needle aspiration of the mass indicated adenocarcinoma. For biliary decompression, we placed a fully covered self-expandable metal stent (SEMS) (10×60 mm WallFlex™; Boston Scientific, Natick, MA) with a duodenoscope via a transpapillary route. Thereafter, he underwent neoadjuvant chemoradiotherapy with a total dose of 50.4 Gy in 28 fractions and S-1 (80mg/m², twice daily on radiation day alone) for 1 month and subsequent chemotherapy with gemcitabine for 1 cycle (1000mg/m², on days 1, 8 and 15). Since contrast-enhanced CT after gemcitabine therapy showed the increase of the tumor, he underwent the second-line chemotherapy with FOLFIRINOX regimen (a combination of oxaliplatin 85 mg/m², irinotecan 180 mg/m², fluorouracil 400 mg/m² as an intravenous bolus and 2400mg/m² as a 46-h continuous infusion and l-leucovorin 200 mg/m², every 2 weeks) for 5 months. On day 32 during the regimen, he developed fever of 38.3 °C with elevated serum level of CRP [20.62 mg/dl]. He recovered from it by antibiotics administration for 7 days. Surprisingly, contrast-enhanced CT just before surgery revealed multiple hypovascular masses with marginal contrast enhancement mimicking cancer metastases around the hepatic hilum and portal vein (Figure A and B, arrow) in addition to the decrease of the original cancer (Figure A, dashed arrow). Since abscesses were more likely to emerge after the sequential therapies than cancer metastases according to the clinical course, we performed surgical exploration for an accurate diagnosis followed by a curative resection of the cancer. The eccentric masses were finally diagnosed as abscesses caused by bile duct microperforation based on the operative findings which were thinning of the bile duct, easy exposure of the SEMS (Figure C) and pus discharge from the masses. The resection of pancreatic cancer was successfully performed by subtotal stomach preserving pancreatoduodenectomy and the abscesses were drained.

There have been some reports regarding late complications of biliary SEMS placement such as bile duct perforation due to mechanical pressure by a SEMS and hepatic abscess due to

stent occlusion.¹⁻³ This is the first report of an extrahepatic abscess at the eccentric site as a late complication of SEMS placement. The eccentric abscess can result from a combination of SEMS placement and neoadjuvant chemoradiation that will contribute to tissue damage and delayed healing at the bile duct. Thus, we have to take such an extrahepatic abscess into consideration as a differential diagnosis in addition to cancer metastasis when a mass emerges around a biliary SEMS during neoadjuvant therapy.

References

1. Park SH, Jeong S, Lee DH. Bile duct perforation caused by an uncovered metal stent treated by placement of a covered metal stent in a patient with pancreatic cancer. *Endoscopy*. 2014; 46 Suppl 1 UCTN:E240-1
2. Siddiqui AA, Mehendiratta V, Loren D, et al. Self-expanding metal stents (SEMS) for preoperative biliary decompression in patients with resectable and borderline-resectable pancreatic cancer: outcomes in 241 patients. *Dig Dis Sci*. 2013; 58:1744-50
3. Ho H, Mahajan A, Gosain S, et al. Management of complications associated with partially covered biliary metal stents. *Dig Dis Sci*. 2010; 55:516-22

Figure A

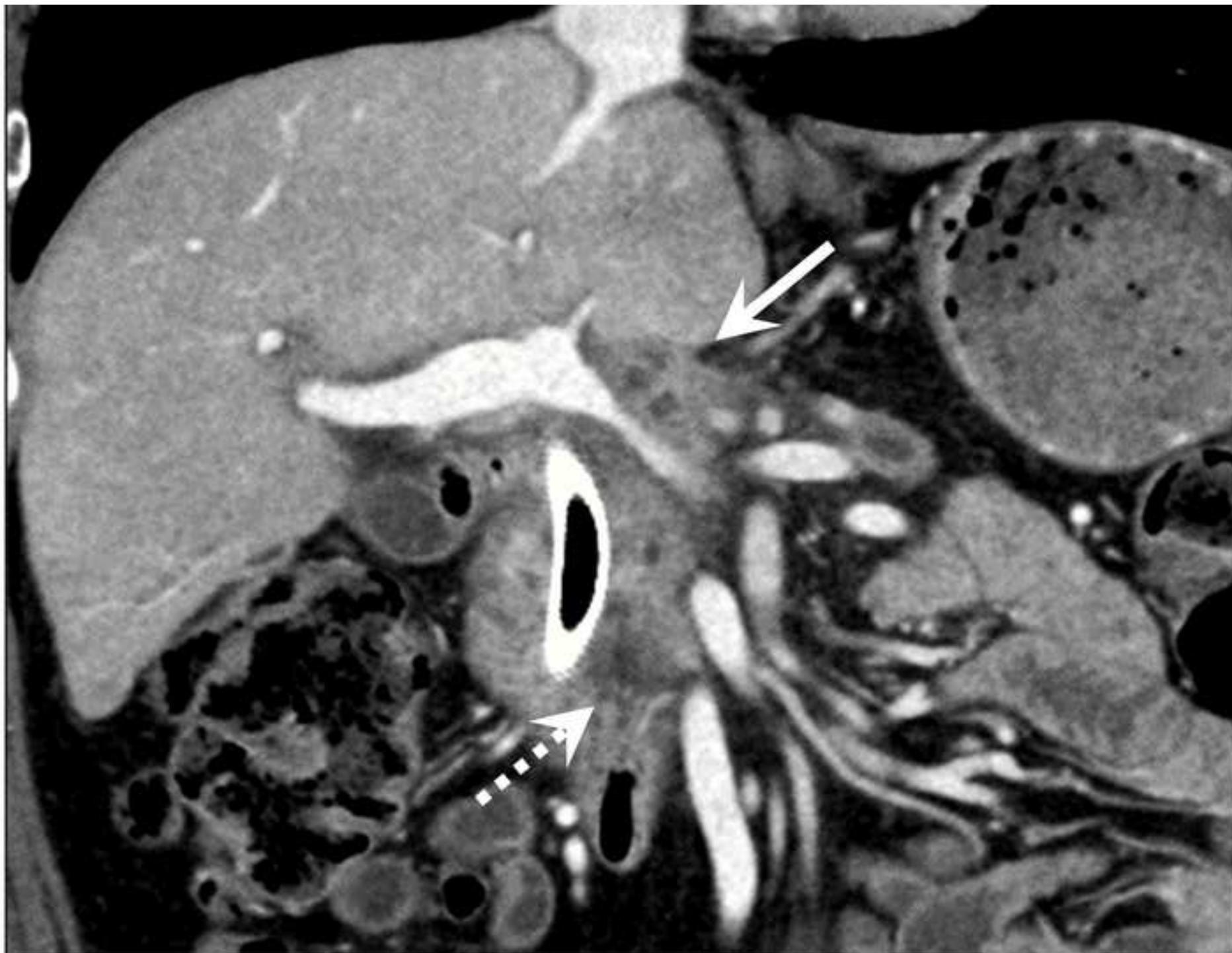


Figure B

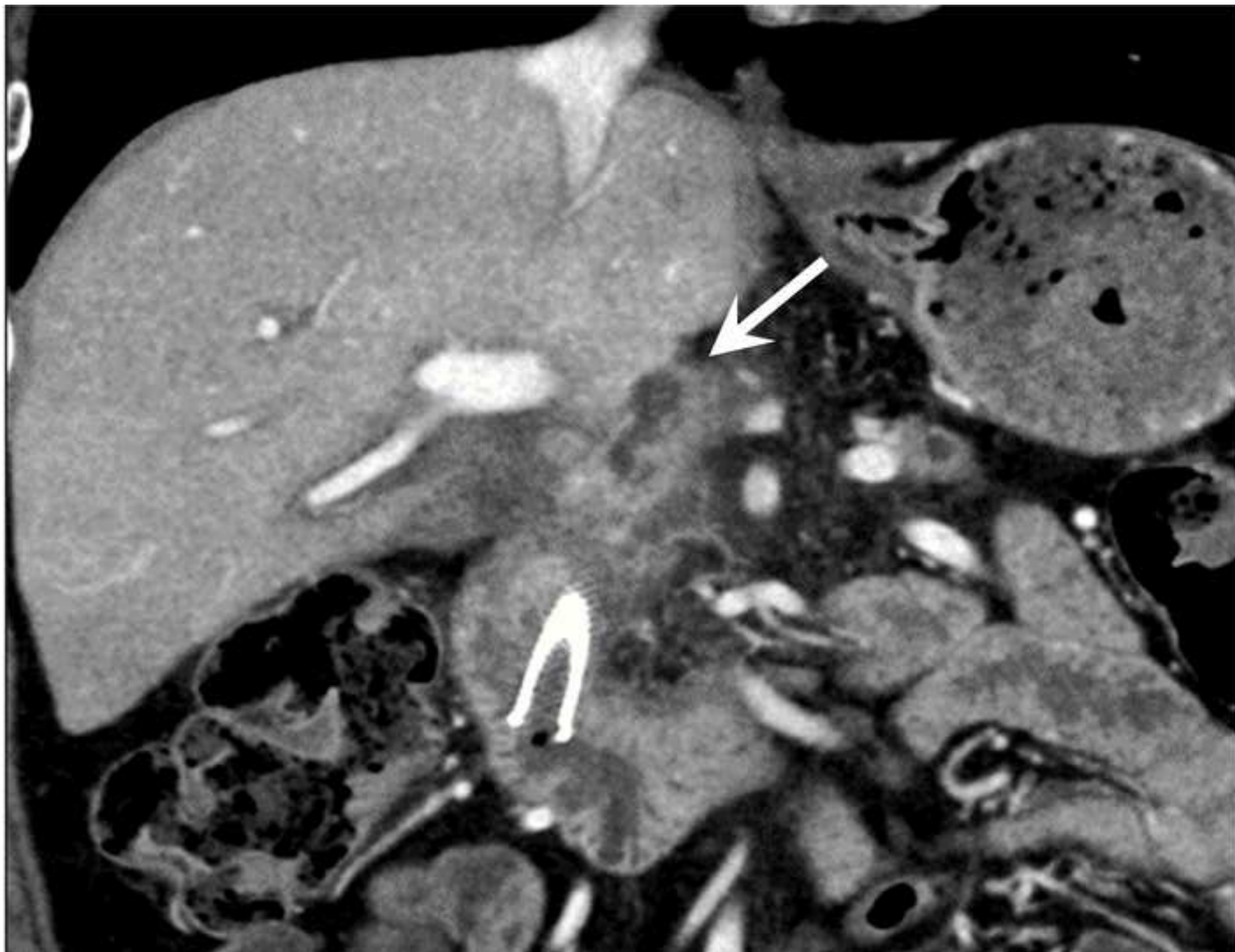


Figure C

