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# Awareness of Tract Seeding With Endoscopic Ultrasound Tissue Acquisition in Perihilar Cholangiocarcinoma

Nataliya Razumilava, MD<sup>1</sup>, Ferga C. Gleeson, MB, BCh<sup>1</sup>, and Gregory J. Gores, MD<sup>1</sup>

<sup>1</sup> Division of Gastroenterology and Hepatology, Mayo Clinic, Rochester, Minnesota, USA.

## To the Editor

Cholangiocarcinoma (CCA) is a biliary tract tumor that is notoriously diffi cult to diagnose. Surgical resection is associated with a 20-40% 5-year survival rate. Liver transplantation with neoadjuvant therapy for unresectable perihilar CCA (pCCA) can be a curative option with a 5-year survival rate of >70%, and is offered by a growing number of medical centers (1). Advanced pCCA with extrahepatic metas tasis is a contraindication for liver transplantation. Any undiagnosed metastatic disease will have an accelerated course upon initiation of immunosuppressive therapy affer liver transplantation. In a recent article, Tellez-Avila et al. (2) from Mexico report the high sensitivity of endoscopic ultrasound (EUS)-guided tissue acquisition for pCCA. While test performance is reasonable, the use of this technique in pCCA is fraught with an inappropriately high rate of needle tract tumor seeding (3). The data on tract seeding rates in the presented study are missing. The study (2) echoes the recent report from the Indiana University group stating that EUS-guided fineneedle aspiration (FNA) did not influence CCA recurrence and patient survival after the curative-intent surgery (4). However, the median progression-free survival in the study from Indiana was 17.8 months (95% CI, 14.5–22.8), which is too dismal and short a time to observe the effect of tumor tract seeding on outcomes. The aim of liver transplantation is to dramatically improve the survival of patients with disease that otherwise would be lethal. A study from our institution indicates that during the tumor staging procedure 83% of patients with a history of a positive EUS-directed needle aspiration are found to have peritoneal metastasis (5). More impressively, the metastases were along the needle track, implying seeding during the EUS-directed biopsy. We should be diligent in using other diagnostic modalities, including imaging studies, cholangiography, and advanced cytological evaluation with fluorescent *in situ* hybridization for polysomy, in making the diagnosis of pCCA. In centers and countries that can offer liver transplantation for pCCA, we need to be clear that EUS FNA of a hilar mass (pCCA) should be discouraged. EUS FNA remains a very important tool in the sampling of lymph nodes and other extra hepatic sites for pCCA staging. The medical community should be aware of the high risk associated with direct tumor tissue sampling with EUS FNA, as this can be detrimental to patient outcomes.

Correspondence: Gregory J. Gores, MD, Department of Medicine and Physiology, College of Medicine, Mayo Clinic, 200 First Street SW, Rochester, Minnesota 55905, USA. gores.gregory@mayo.edu.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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