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Hepatobiliary cancer and pyogenic liver abscess: when poking the skunk is not enough:

Invited Commentary on Chen, et al. *Am J Surg* 2013;205:52–7

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Patients with hepatobiliary or pancreatic cancer who develop pyogenic liver abscesses (PLAs) are an incredibly complex group of patients. First, these patients often harbor advanced malignancies that are associated with immune suppression. Furthermore, these cancers result frequently in biliary obstruction that can lead to overt or insipid cholangitis and subsequent liver abscess formation. If the cancer or associated obstructed biliary tree is not recognized promptly, patients may develop multiple abscesses or multiloculated abscesses, which are notoriously difficult to treat. In addition, the performance status of these patients is typically poor, and therefore, complicated invasive treatment plans are tolerated poorly. Moreover, data from the past 15 years suggest that the incidence of PLA is increasing, and most of PLAs are associated with cancer.^{1,2} Most of these PLAs are now treated with percutaneous drainage and antibiotics.³

The report by Lai et al⁴ in this issue adds valuable insight into the treatment of PLAs in patients with hepatobiliary malignancies. In this series of 44 patients with PLAs, treatment with percutaneous drainage failed in 34%. Importantly, the mortality in these 15 patients was an astounding 60%. Twelve of these 15 patients underwent salvage surgery, but only 6 survived. Factors associated with failure of percutaneous drainage on multivariate analysis were multiloculated abscesses and abscesses with biliary communication. The overall mortality for all patients was 32%, which is not surprising, considering that previous work has clearly demonstrated mortality ranging from 5.6% to 33%.^{1-3,5}

Thus, the dilemma for surgeons treating patients with cancer with PLAs is to recognize early those patients with high likelihood of failure of percutaneous drainage. Aside from those factors identified by multivariate analysis, the data presented offer some clues. Patients in whom percutaneous drainage failed were older ($P=.061$), had multiple abscesses ($P=.042$), and took longer to defervesce after admission ($P=.052$). Most patients who responded to treatment were without fever within 5 days of treatment. Therefore, a persistent fever should be an indicator that percutaneous management may not be the remedy. Likewise, an obstructed biliary tree may be a persistent nidus of infection, and thus, biliary decompression with endoscopic or percutaneous stenting is warranted. In addition, unresponsive PLA may actually be a manifestation of an underlying liver tumor.⁶ Although several of these factors did not reach statistical significance, a larger series of patients may provide the data necessary to avoid a type 2 statistical error.

In summary, percutaneous drainage of PLAs associated with hepatobiliary malignancies is the primary treatment, but surgeons should be cognizant of those patients at risk for

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treatment failure. Poking pungent PLAs may not be treatment enough when only operative therapy will provide adequate drainage and perhaps diagnose underlying malignancies.

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