



Early predictors for the diagnosis of pyogenic liver abscess

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Dear Editor,

One chart-review study conducted by Chia et al. published in *Intern Emerg Med* explored the predictors for the diagnosis of pyogenic liver abscess in the emergency department [1]. Some of my ideas are shared with the readers. First, Chia et al. reported that fever was the most common feature in patients with pyogenic liver abscess (86.5%), and other features were followed [1]. In addition, previous studies demonstrated that weight loss could be seen among patients with pyogenic liver abscess [2]. Thus, weight loss should be taken into account when pyogenic liver abscess is suspected among patients presenting with fever in the emergency department. Second, pyogenic liver abscess is diagnosed mainly by the aid of imaging tools. Chest X-ray is an appropriate imaging tool for patients presenting with fever in the emergency department. Despite not frequently found, patients with pyogenic liver abscess occasionally demonstrated abnormal chest X-ray, such as an air-fluid level in the right-upper quadrant [2, 3]. However, there were no data of chest X-ray in Chia et al's study [1]. Third, approximately 9.7% (15/155) of study cases received ultrasonography in Chia et al's study [1]. The performing rate of ultrasonography seemed to be low. Ultrasonography is a rapid and non-invasive imaging tool. Physicians in the emergency department should have an ability to perform ultrasonography to investigate the fever cause, such as hypoechoic lesions for pyogenic liver abscess, valvular vegetations for endocarditis, gallstones for acute cholecystitis, intrahepatic stones for cholangitis, and others. Forth, some patients are susceptible to a variety of infections subsequent to pyogenic liver abscess [4]. In addition to the treatment of pyogenic liver

abscess, physicians should pay attention to these potential infections subsequent to pyogenic liver abscess, such as splenic abscess, empyema, and others [4]. Fifth, patients with pyogenic liver abscess are associated with increased risk of subsequent gastrointestinal cancers, particularly for colorectal cancer [5]. Therefore, patients with pyogenic liver abscess should be suggested to assess the possibility of subsequent gastrointestinal cancers when pyogenic liver abscess is cured. Finally, I appreciate Chia et al's great efforts to provide the up-dated evidence on this issue.

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Compliance with ethical standards

Conflict of interest The author discloses no conflicts of interest.

Statement of human and animal rights This article does not contain any studies with human participants or animals performed by any of the authors.

Informed consent None.

References

1. Chia DWJ, Kuan WS, Ho WH, Sim TB, Chua MT (2019) Early predictors for the diagnosis of liver abscess in the emergency department. *Intern Emerg Med*. <https://doi.org/10.1007/s11739-019-02061-z>
2. Hernandez JL, Ramos C (2001) Pyogenic hepatic abscess: clues for diagnosis in the emergency room. *Clin Microbiol Infect* 7:567–570
3. Oh JH, Jung SH, Jeon EJ (2011) Gas-forming pyogenic liver abscess suspected on a plain chest X-ray. *Korean J Intern Med* 26:13
4. Keller JJ, Tsai MC, Lin CC, Lin YC, Lin HC (2013) Risk of infections subsequent to pyogenic liver abscess: a nationwide population-based study. *Clin Microbiol Infect* 19:717–722

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5. Lai HC, Lin CC, Cheng KS, Kao JT, Chou JW, Peng CY et al (2014) Increased incidence of gastrointestinal cancers among patients with pyogenic liver abscess: a population-based cohort study. *Gastroenterology* 146:129–137

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