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CE - LETTER TO THE EDITOR

Exploring the relationship between nonalcoholic fatty liver disease and pancreatic cancer by computed tomographic survey: comment

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An article written by Chang et al. reports that nonalcoholic fatty liver disease is associated with an increased risk of pancreatic cancer, and moreover, is also a prognostic factor for pancreatic cancer [1]. First, Chang et al. report that it is not feasible to perform a liver biopsy to diagnose nonalcoholic fatty liver disease, and they use computed tomographic scanning instead [1]. It is a good idea, and provides a new research direction for nonalcoholic fatty liver disease using computed tomographic scanning. Second, Chang et al. report that more than 80% of patients with pancreatic cancer have cachexia. It means that these patients have body weight loss [1]. Thus, all BMI data presented in the study were recorded after pancreatic cancer was diagnosed. That is, these BMI data were not the original records of patients while being in a healthy status. It partially explains why there is no significant association between BMI and pancreatic cancer in the study. One study by Li et al. reports that overweight or obesity found in early adulthood is later associated with increased risk of developing pancreatic cancer [2]. Obesity is also proven to be associated with nonalcoholic fatty liver disease [3]. I think that the previous BMI data of these patients prior to the diagnosis of pancreatic cancer may be kept in Chang et al.'s hospital. If Chang et al. can re-include the previous BMI data for analysis, much evidence can be provided to the readers to clarify points in dispute. Third, hypertriglyceridemia is found to be associated with nonalcoholic fatty liver disease [4]. If Chang et al. can analyze the triglyceride data prior to using statins, it might help to clarify the cause of nonalcoholic fatty liver disease. Fourth, the latency period of pancreatic cancer, as seen in many cancers, may be long. The initiating features of pancreatic cancer often are non-specific or vague. We cannot be sure of the onset date of pancreatic cancer. Even for the purpose of early identifying nonalcoholic fatty liver disease and pancreatic cancer, it is still not feasible to perform computed tomographic scanning frequently. So, we cannot know which condition comes first when nonalcoholic fatty liver disease and pancreatic cancer are presented together, as seen in Chang et al.'s study. In contrast, some patients with new-onset diabetes may have sub-clinical pancreatic cancer [5]. Theoretically, these diabetic patients are at risk to develop nonalcoholic fatty liver disease. If such a condition happens, pancreatic cancer is a cause and nonalcoholic fatty liver disease is a result.

There is no definite evidence to prove the causal relationship between nonalcoholic fatty liver disease and pancreatic cancer, even though there may be an association. Currently, I think that nonalcoholic fatty liver disease is unable to be regarded as a risk factor for pancreatic cancer. Finally, I appreciate Chang et al.'s great efforts to provide updated evidence on this topic.

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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 the author.

Informed consent Patient informed consent is not required for this type of article.

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