

perhaps would be a more widely feasible protocol moving forward for PEP risk reduction.

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Conflicts of interest

The authors disclose no conflicts.

Most current article

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Reply. We appreciate the authors for their interest and comments on the article “Vigorous periprocedural hydration with lactated Ringer’s solution reduces the risk of pancreatitis after retrograde cholangiopancreatography in hospitalized patients”.^{1,2} At the present time, post endoscopic retrograde cholangiopancreatography (ERCP) pancreatitis prophylaxis is mainly focused on the use of rectal indomethacin and pancreatic duct stent placement for high-risk patients. The present study suggest that high-volume intravenous fluid resuscitation with lactated Ringer’s solution is beneficial prophylaxis, although further evaluation of its efficacy as both an additive and alternative to rectal indomethacin is needed. Although nonsteroidal anti-inflammatory drugs probably reduce the risk through the inhibition of prostaglandin synthesis and activation of phospholipase A₂, intravenous fluid resuscitation presumably influences the course of acute pancreatitis by preserving pancreatic microcirculation.³ Therefore, it is highly plausible these 2 preventive strategies are synergistic.

We agree with the comments that these results are not generalizable to America, where most endoscopic retrograde cholangiopancreatographies are outpatient procedures. Short-duration infusion protocol (4 hours) seems to be an easily implementable practice in health-care institutions. Future directions in this field will need to find a way to safely administer a large volume of fluid in the shortest time to be of use in the United States and other countries where many endoscopic retrograde cholangiopancreatographies are performed on an outpatient basis.

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The author discloses no conflicts.

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Diet and the Risk of Acute Pancreatitis



Dear Editor:

We read with great interest the article by Setiawan et al¹ regarding the association between certain dietary patterns and the risk of acute pancreatitis (AP) in a large US cohort study. The authors found that the dietary intake of food rich in saturated fat and cholesterol such as red meat and eggs was associated with an increased risk of biliary AP, whereas fiber intake was inversely associated with both biliary and non-biliary AP. Vitamin D intake was inversely associated with biliary AP, whereas coffee intake was protective toward non-biliary AP and recurrent or chronic pancreatitis.

These results are interesting and consistent with the few similar studies on this topic and with studies suggesting that diets rich in fat increase the risk of gallstones.² However, additional points need to be discussed to clarify the authors’ findings.

Our first point is regarding the choice to exclude from the controls for the analysis on the risk of biliary AP the participants with history of cholecystectomy, either at the baseline questionnaire or during the study. Gallstone disease has a prevalence of about 20% in Western countries, and some 20% of these subjects will become symptomatic and eventually undergo cholecystectomy.³ The exclusion from the control group of subjects with gallstones who underwent cholecystectomy might have caused a bias eliminating subjects with a diet that was similar to those of the biliary AP group.

A second point regards the possibility that drugs used to treat metabolic syndrome, hypercholesterolemia, or other disorders that are likely to be more common in subjects with a diet rich in fats and poor in fibers might cause AP. Statins have been associated with both an increased and decreased risk of AP.^{4,5} If the authors have access to these data, their analysis could be corrected for the exposure to these drugs.

A final observation regards the analysis on the risk of recurrent and chronic pancreatitis. In the study, data on diet, as well as on other risk factors for pancreatitis including alcohol intake and smoking, were obtained from the baseline questionnaire only. However, because the risk of developing recurrent and chronic pancreatitis might be related to continued or cumulative dose of exposure to such factors⁶ and modifications of drinking and smoking habits are not unusual during life course, this analysis might have benefited from repeated questionnaires to avoid possible bias or to better understand mechanisms for the observed associations.

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Reply. We appreciate the interest from Drs Archibugi and Capurso in our paper reporting several dietary factors associated with pancreatitis risk in the Multiethnic Cohort.¹ Regarding the first point, the reason we excluded subjects from the analysis who underwent cholecystectomy at baseline or before the index date (the sentinel date for the acute

pancreatitis case) was because these subjects were either no longer or at least at a much lower risk of developing biliary acute pancreatitis.

Regarding the second point, we do have medication data, including statins, from a subset of cohort participants. We acknowledge that some medications could be associated with risk of acute pancreatitis and we are currently conducting detailed analyses examining these associations with pancreatitis risk.

Finally, we agree with Drs Archibugi and Capurso in that changes in diet and smoking habits over time could have influenced the risk of developing recurrent and chronic pancreatitis. In a separate analysis, we found that the concordance between baseline and follow-up data for dietary factors was good (40% in the same quartile and 80% within ± 1 quartile for most nutrients). However, we only had these data on a subset of cohort members (68%) and therefore acknowledged in the discussion section that changes in diet over time could attenuate disease associations.

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