

Post-ERCP pancreatitis in patients with type 2 diabetes mellitus



To the Editor:

In their recent observational study, Zhao et al¹ found similar incidence rates of post-ERCP pancreatitis (PEP) in patients with chronic pancreatitis (CP) versus other biliary diseases, and they reported lower PEP incidence rates as the severity of CP increased. The authors state that they “identified other possible risk and protective factors not examined before. The reduced incidence of PEP in CP patients was correlated with the presence of diabetes mellitus, pancreatic stones, and the use of ESWL (extracorporeal shock wave lithotripsy).” We would like to point out that our group had formerly evaluated the influence of type 2 diabetes mellitus (T2DM) on the short-term adverse events after ERCP in an 11-year (2003-2013) observational study that included 126,885 therapeutic procedures (23,002 [18.1%] in people with T2DM) in the overall Spanish population.² We found lower crude incidence rates of PEP in people with T2DM than in people without T2DM (15.9% vs 18.3%, respectively). We additionally described decreasing numbers of PEP over time, but this trend reached statistical significance only for people without T2DM. In our study, T2DM was associated with lower in-hospital mortality after an endoscopic biliary sphincterotomy (odds ratio [OR] = 0.82 [0.74-0.92]). Last, time trend analyses from 2003 to 2013 showed significant reductions in in-hospital mortality over time only in people with T2DM (OR = 0.97 [0.94-1.00]). Despite some methodologic limitations inherent in observational studies, we believe that it is worth remembering our results at this point.³

DISCLOSURE

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3. García-Cano J. If you suffer from type-2 diabetes mellitus, your ERCP is likely to have a better outcome. *Rev Esp Enferm Dig* 2016;108:383-5. <http://dx.doi.org/10.1016/j.gie.2017.08.035>

Response:



We highly appreciate the response from de Miguel-Yanes et al¹ about the influence of diabetes mellitus (DM) on the incidence rate of post-ERCP pancreatitis (PEP). Because patients with chronic pancreatitis (CP) are at high risk for the development of DM, it is an important issue with significant implications for clinical practice.²

de Miguel-Yanes et al³ described a decreased rate of PEP and lower in-hospital mortality after endoscopic biliary sphincterotomy in people with type 2 DM in Spain, which is consistent with our study; the reduced incidence of PEP in CP patients was correlated with the prevalence of DM.⁴ Despite the similar conclusion, we would like to point out 2 major differences: the included patients and the definition of DM. The patients analyzed in our study had CP, and the DM patients were referred as having type 3c DM pancreatogenic diabetes.

Type 3c DM is frequently labeled type 2 DM but follows a different clinical course, with a worse glycemic control and a markedly greater requirement for insulin. This form of diabetes results in progressive fibrotic destruction or requires surgical resection of the pancreas, often resulting in both exocrine and endocrine dysfunctions,⁵ which supports the idea that the incidence of PEP in CP patients decreases significantly with disease progression. What, then, is the influence of type 2 DM? Bellin et al⁶ showed that calcification and exocrine insufficiency were strongly associated with DM in patients who had diabetes both before and after the diagnosis of CP; thus, they postulated that type 2 DM could increase or hasten the presentation of type 3c DM, causing a “double-hit” of impaired pancreatic β cell mass from CP plus other types of DM. However, because no tests distinguish type 2 DM from type 3c DM from “double/overlapping” type 2 / type 3c DM, future studies will be necessary to explore the clinical course and pathologic mechanisms of type 1 / type 2 DM in CP progression.

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