C-48

Pancreatic Neuroendocrine Tumors with Intraductal Growth: Unraveling a Rare Entity

Valentina Andreasi, Stefano Partelli, Anna Battistella, Francesca Muffatti, Nicolò Pecorelli, Stefano Crippa, Massimo Falconi.

Pancreatic and Transplant Surgery Unit, Pancreas Translational and Clinical Research Center, IRCCS San Raffaele Scientific Institute, Vita-Salute San Raffaele University, Milan, Italy.

BACKGROUND

Main pancreatic duct (MPD) dilation has been recognized as a predictor of disease aggressiveness in patients with pancreatic neuroendocrine tumors (PanNETs). Most PanNETs that cause MPD dilation tend to grow near or around the MPD. On the other hand, tumor growth within the pancreatic ductal system itself has been poorly investigated so far. This study aims to describe the frequency of PanNETs with intraductal growth and assess its association with other pathological features of aggressiveness, as well as its impact on survival outcomes.

METHODS

All consecutive patients who underwent pancreatic resection for a well-differentiated non-functioning (NF-) PanNET at San Raffaele Hospital (Milan, Italy) between January 1997 and December 2023 were included.

RESULTS

A total of 465 patients were included in the study. Intraductal tumor growth was observed in 18 cases (4%). The most common clinical presentations in patients with intraductal growth were acute pancreatitis, exocrine insufficiency, and the onset or worsening of diabetes. The median BMI was significantly lower in these patients compared to the remaining study cohort (21.4 *versus* 25.0 kg/m2, p=0.005). The Ki67 proliferative index was significantly higher in patients with intraductal tumor growth compared to the other subjects (11% *versus* 2%, $p < 0.001$). After a median follow-up of 55 months, 114 patients (25%) experienced disease progression or recurrence, and 50 patients (11%) eventually died. The 3-year progression-free survival (PFS) rate for patients with intraductal tumor growth was 44%, compared to 81% in those without intraductal growth (p=0.001). After propensity score matching, the PFS difference between these two groups was no longer statistically significant (p=0.629).

CONCLUSIONS

Intraductal tumor growth is a histological finding that occurs more frequently than expected, being present in 4% of patients undergoing surgery for PanNETs. This growth pattern seems to be associated with more aggressive histological features, in particular with a higher proliferative index. These findings reinforce the well-established principle that surgical intervention is essential for all PanNETs with any form of MPD involvement.

ABSTRACT ID 33481