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Incidental Histological Diagnosis of Small Pancreatic Neuroendocrine Tumours: Are We Underestimating Their Incidence?

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BACKGROUND: The annual incidence of pancreatic neuroendocrine tumours (PanNET) has been estimated to be around 0.8/100,000 inhabitants. The aim of this study was to determine the frequency of incidental histological diagnosis of PanNET in pancreatic specimens evaluated for other resected neoplasms.

METHODS: 1023 histopathological examinations of pancreatic specimens performed by three different pathologists in 3 high-volume centers in Italy were retrospectively reviewed. Preoperative evaluations and surgical procedures were performed directly or under the supervision of a single surgeon. All the cases with a main pathological diagnosis of PanNET were excluded.

RESULTS: An incidental associated diagnosis of PanNET was made in 38 specimens (4%). NET was the most frequent (57%) type of associated neoplasm, followed by intraductal papillary mucinous neoplasm (IPMN) (16%). Among those 38 cases, 29 (76%) had a largest diameter \leq 5 mm (microadenoma), whereas the other 9 had a maximum length $>$ 5 mm (median diameter=8 mm, range 7-15 mm). In 9 incidental PanNET a median Ki67 value of 1% was measured. Patients with incidental PanNET were significantly older than those

in whom a PanNET was not found (median age: 69 years versus 65.5 years, $P=0.003$). A statistically significant difference was found between the finding of a pancreatic neuroendocrine incidentaloma and the main histological diagnosis ($P=0.03$). There was no association between incidental diagnosis of PanNET and gender or type of operation. When excluding microadenomas, there was no statistically significant difference in terms of median age between the patients with incidental PanNET ($n=9$) and the remaining patients (median age: 64 years versus 65.5 years, $P>0.05$).

CONCLUSION: The frequency of incidental histological diagnosis of PanNET is considerably high, suggesting that their real incidence is probably underestimated. An histological correlation with pancreatic mucinous diseases seems evident from statistical analysis.