
Natural History of Intraductal Papillary Mucinous Neoplasms: A Case Report

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Context The natural history of intraductal papillary mucinous neoplasms (IPMNs) is unknown even if we well-know that a pancreatic IPMN has malignant potential as the disease process follows the adenoma-carcinoma sequence. The vast majority of our resections were done to prevent the development of invasive cancer. Herein, we report the 14-year natural history of a IPMN. Case report In 1999, a 60-year-old man was observed for the incidental US finding of a cystic lesion (diameter 30 mm) in the head of the pancreas. MRI and cholangiopancreatography confirmed the finding. The past medical history reported a diagnosis of diabetes mellitus in 1998. FNA-US aspiration was performed and high levels of CEA (104 ng/mL) and amylase (1,230 U/L) were detected. The patient underwent surgery but an explorative laparotomy was performed because cystic lesion disappeared. The patient undergone to a surveillance program with yearly US scans. After five years (2004), an US showed a cystic lesion (diameter: 17 mm) of the pancreatic head without Wirsung dilatation. Re-evaluations by US scan showed stable disease until April 2013, when an increased size of the cystic lesion (diameter 29x32 mm) was revealed. A cholangio-Wirsung magnetic resonance (CWMR) showed a further cystic enlargement (60x26 mm) and showed a diffuse Wirsung duct dilatation (8 mm). Finally, an endosonography revealed the presence of “fish-eye” sign, confirmed the diffuse dilatation of the Wirsung duct (maximum diameter 15 mm), a 3 cm cyst communicating with the main duct and revealed several contrast-enhancing mural nodules. A FNA did not show malignant cells. Considering the presence of these “high-risk-stigmata” the diagnosis of main duct IPMN with high risk of progression to invasive carcinoma was made and the patient underwent a total pancreatectomy. Pathological diagnosis confirmed an IPMN diffuse to the whole pancreas with an invasive carcinoma of the pancreatic head. Conclusions Our case showed that in fourteen years an IPMN may become malignant. Thus, a surveillance program has to be performed for a long time, especially in young patients with a long expectancy of life. Surgery has to be strongly considered in young fit patients with cystic lesion greater than 2 cm in diameter.