

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.