

Review

INTRADUCTAL PAPILLARY MUCINOUS NEOPLASM OF THE PANCREAS – RISK OF MALIGNANCY

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Abstract

Intraductal papillary mucinous neoplasms of the pancreas (IPMNs) are precancerous lesions. Anatomically, IPMNs are classified as main duct-type and branch duct-type. Histologically, these neoplasms are grouped into 4 categories: intestinal, pancreatobiliary, oncocytic, and gastric. Patients diagnosed with IPMN have been shown to have an increased risk of malignancy of the pancreatic tumor, but also an increased risk of associating cancers with extrapancreatic localization. Among the factors associated with the risk of malignancy of IPMNs are the involvement of the main pancreatic duct or branch duct, tumor size, diameter of the main pancreatic duct, and histological type. Regarding IPMN-associated extrapancreatic cancers, gastric adenocarcinoma and colorectal adenocarcinoma were the most reported.

Keywords: IPMN, main pancreatic duct, branch pancreatic duct, extrapancreatic cancers.

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1. Introduction

A series of cystic neoplasms can develop in the pancreas. These can be classified into several categories:

- mucinous cystic tumors;
- serous cystic tumors;
- cystic islet cell tumors;
- solid pseudopapillary neoplasms;
- intraductal papillary mucinous neoplasms of the pancreas (IPMNs) [1,2].

IPMNs are potentially malignant tumors that are also known as mucinous duct ectasias. These lesions can affect the main pancreatic duct, the branch ducts, or both [3]. Ohashi et al first described IPMN in 1982 in four patients diagnosed with pancreatic carcinoma but with a favorable outcome [4]. The particularities described in these patients

were: dilated main pancreatic ducts, mucus secretion from the pancreatic duct, and patulous ampullary orifices [4]. Due to the small tumor size and absence of symptoms, the real incidence of IPMNs is not known. It is currently estimated that IPMNs account for approximately 1-3% of exocrine pancreatic neoplasms and 20-50% of cystic pancreatic neoplasms [5,6]. A study of 2832 computed tomography scans performed in patients without risk factors for pancreatic disease or a history of pancreatic lesions identified the presence of pancreatic cysts in 73 cases. The reported prevalence was 2.6 per 100 patients, and the size of the cysts ranged from 2 to 38 mm, with an average diameter of 8.9 mm [7]. The reported prevalence was 2.6 per 100 patients, and the size of these cysts ranged from 2 to 38 mm, with an average diameter of 8.9 mm [7]. Another study that looked at the