

Intraductal papillary mucinous neoplasia (IPMN) of the pancreas: the pivotal role of MRI for the differential diagnosis and the choice of treatment

M. Zuckermann¹, E. Bertelli², F. Paternostro¹, D. Beccani², S. Zecchi-Orlandini¹ and L. Capaccioli²

¹Department of Experimental and Clinical Medicine, University of Florence, Largo Brambilla, 3 Firenze, Italy

²Institute of Radiology Careggi University Hospital; Florence, Largo Brambilla, 3 Firenze, Italy

Macrocytic pancreatic tumors seem to play an important role among neoplastic lesions of the pancreas as they sometimes either show a malignant potential or they already have neoplastic foci inside the cystic tumor. Differential diagnosis is a key factor in comparison with other cystic tumors which are not malignant as Serous Cystic Tumors (SCTs) and Mucinous Cystic Tumors (MCTs). So diagnostic imaging has become more and more important.

Since May 2009 we have observed more than 200 patients with cystic lesions of the pancreas. All the patients underwent a CholangioPancreato Magnetic Resonance (CPMR) after an Ultrasound and/or a CT scan. Then we excluded from our study solid lesions, pseudocysts and tumors with clear signs of malignancy. CPMR was sometimes performed also using a secretine test. Finally 51 patients were evaluated and underwent a follow up programme till now.

Among these patients we found 34 Intraductal Papillary Mucinous Neoplasia (IPMN), 7 MCTs and 10 SCTs. As we know that all SCTs show a lobulated septate pattern, differential diagnosis with IPMN is mandatory in order to give to the patient the treatment of choice. CPMR revealed in 32 out of 34 IPMN patients a communication between the lesion and the main pancreatic duct (MPD); so this sign, which is pathognomonic of IPMN neoplasia, confirmed the diagnosis. All lesions > than 3 cm were resected by surgery (4 MCTs and 3 IPMN). Definitive histology always confirmed pre-operative diagnostic imaging. Now the patients are all disease free at follow up. The other 44 patients undergo CPMR every 6 months following a "wait and see" policy.

CPMR seems to be fundamental for the diagnostic screening of IPMN. This is a simple, safe and non invasive procedure which allows an early diagnosis and a better chance of cure for this kind of patients.

Key words

Pancreatic tumors, Intraductal Papillary Mucinous Neoplasia.