SECONDARY PANCREATIC DIFFUSE LARGE B-CELL LYMPHOMA: AN EUS DIAGNOSIS OF A RARE CAUSE OFPancreatic Mass

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Background: Pancreatic lymphomatous involvement is a rather unusual event: primary pancreatic lymphoma represents a rarity, accounting for less than 2% of all lymphomas. Secondary pancreatic involvement during systemic disease can occur but cytological diagnosis is very rarely performed considering the multiorgan dissemination. Pancreatic involvement may be misdiagnosed as pancreatic cancer thus leading to incorrect therapeutic management. In the last decade the Endoscopic Ultrasound (EUS) has emerged as the most cost-effective and safe procedure, a gold standard to obtain the diagnosis of pancreatic lesions. Lymphomas can show different pattern of pancreatic involvement, the most common one being, at radiological investigations, the nodular, hypodense one. Lymphomatous involvement of the pancreas is usually of the non-Hodgkin’s or B-cell type with diffuse large B-cell lymphoma being the most common histotype. We report an unusual case of secondary, pancreatic, nodular involvement diagnosed by EUS-FNA in patient suffering from a diffuse large B-cell lymphoma. An asymptomatic 68-ys-old male patient was referred to our hospital for radiological follow-up for lymphoma. A Ct scan showed a doubtful enlargement of the pancreatic head. An EUS was performed showing a hypoechoic mass measuring 17 mm in diameter characterized by infiltrative margins, with a central area of necrosis and ipoenhancement on evaluation using ev mdc (Sonovue). Moreover, a peripheral rim of oedematous pancreatic parenchyma was detected. The Endoscopist performed FNA (3 passes, 25 G needle for direct smears and 3 passes, 22 G needle for cell block) in order to rule out pancreatic involvement by the known lympho disease. In the Pathological Unit direct smears were stained with May-Gruenwald-Giemsa and with Papanicolaou stain. The 22 G needle and syringe were rinsed, and the liquid obtained was later centrifugated. The sediment obtained was fixed in 10% buffered formaldehyde, routinely processed and paraffin-embedded as a cell block. Two–micrometer–thick sections were cut, stained with hematoxylin and eosin (H&E). Other sections were cut and used for ancillary studies. Immunophenotypic profiles were determined according to standard immunoperoxidase methods. The panel of antisera for the cell block sections included CD20, CD79a, CD3, cytokeratin AE1/AE3.

Results: Both the direct smears and the cell block sections displayed an abundant, scattered population composed by monomorphous large cells with round nuclei, with multiple nucleoli acting as lymphoid centroblasts. The immunocytochemistry analysis confirmed the cytological hypothesis showing expression of CD20 and CD79a and negativity for CD3 and cytokeratin AE1/AE3. Moreover, necrotic background was detected.

Conclusions: Pancreatic malignant lymphomas are unusual, solid tumors categorized as non-epithelial neoplasms. Primary pancreatic lymphoma is an extremely rare entity, but secondary pancreatic involvement can occur in up to 30% of patients. EUS + FNA is a safe, useful and concrete tool to achieve pancreatic involvement in this setting of lymphomatous diseases and it's fundamental for the therapeutic patient management. Moreover, an important role is played by the cytopathologist's expertise to achieve an accurate diagnosis applying ancillary techniques too, such as immunocytochemistry especially in deceiving cases.