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Pancreatic schwannoma: a rare tumor of the pancreas

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Informed consent: The patient described in this letter provided informed consent for the publication of this letter and for the use of his medical data.

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Dear Editor:

A 51-year-old man was presented to our hospital with a pancreatic mass detected on ultrasound screening approximately 15 days ago. His symptoms and physical examination results were unremarkable. Laboratory data revealed the following: carbohydrate antigen 19-9 (CA19-9), 41.00 U/ml (normal, 0–30 U/ml); carbohydrate antigen 50 (CA50), 2.18 U/ml (normal, 0–30 U/ml); alpha fetoprotein (AFP), 2.73 ng/ml (normal, 0–7 ng/ml); and carcinoembryonic antigen (CEA, 1.04 ng/ml (normal,

0–5 ng/ml). After administration of an iodine-contrast agent, contrast-enhanced abdomen computed tomography (CT) revealed a well-defined mass in the pancreatic head with heterogeneous enhancement (Fig. 1A, 1B). Magnetic resonance imaging (MRI) revealed a mass with heterogeneous intensity on the T2-weighted image (Fig. 1C). The MRI enhancement scan features showed similarity with the CT results (Fig. 1D). Finally, pancreaticoduodenectomy was performed for this patient. The surgical specimen was moderately hard, with a grayish yellowish cut surface and a capsule. Pathological analysis revealed proliferating spindle-shaped cells arranged in a palisading pattern (Fig. 1E). Immunohistochemical staining was positive for S-100, SOX-10, Vim, Bcl-2, and Ki67 (1%) and negative for CD34, STAT-6, CD117, and DOG-1 (Fig. 1F). These findings confirmed the diagnosis of schwannoma in the pancreatic head.

Discussion

Schwannomas are rarely detected in the pancreas (1), and the majority of cases have been reported to be benign, with <1% transforming into malignancy (2,3,4). They tend to occur in adults, with slightly higher incidence in women than in men (2). The clinical symptoms of schwannomas are nonspecific, and tumor marker test is often negative (2,3). Although an accurate preoperative diagnosis helps in avoiding an unnecessary radical resection, endoscopic ultrasonography, or percutaneous biopsy (4), it is difficult to achieve (2,3,4). Radiologically, schwannomas are well-circumscribed masses displaying inhomogeneous intensity or density with heterogeneous enhancement by increased fluorodeoxyglucose uptake and are frequently confused with nonfunctioning endocrine neoplasms, solid pseudopapillary neoplasms, pancreatic ductal adenocarcinoma, and mucinous cystic neoplasms (1,2,3,4). Histologically, schwannomas contain various proportions of Antoni A (hypercellular component) and Antoni B (hypocellular component), expressing S-100 protein (1,2,3,4). Surgery is the curative treatment for symptomatic patients and surveillance may be a favorable option for asymptomatic ones, although preoperative diagnosis is challenging (4,5). Following complete tumor

excision, patients with pancreatic schwannomas generally exhibit favorable prognosis (2,5).

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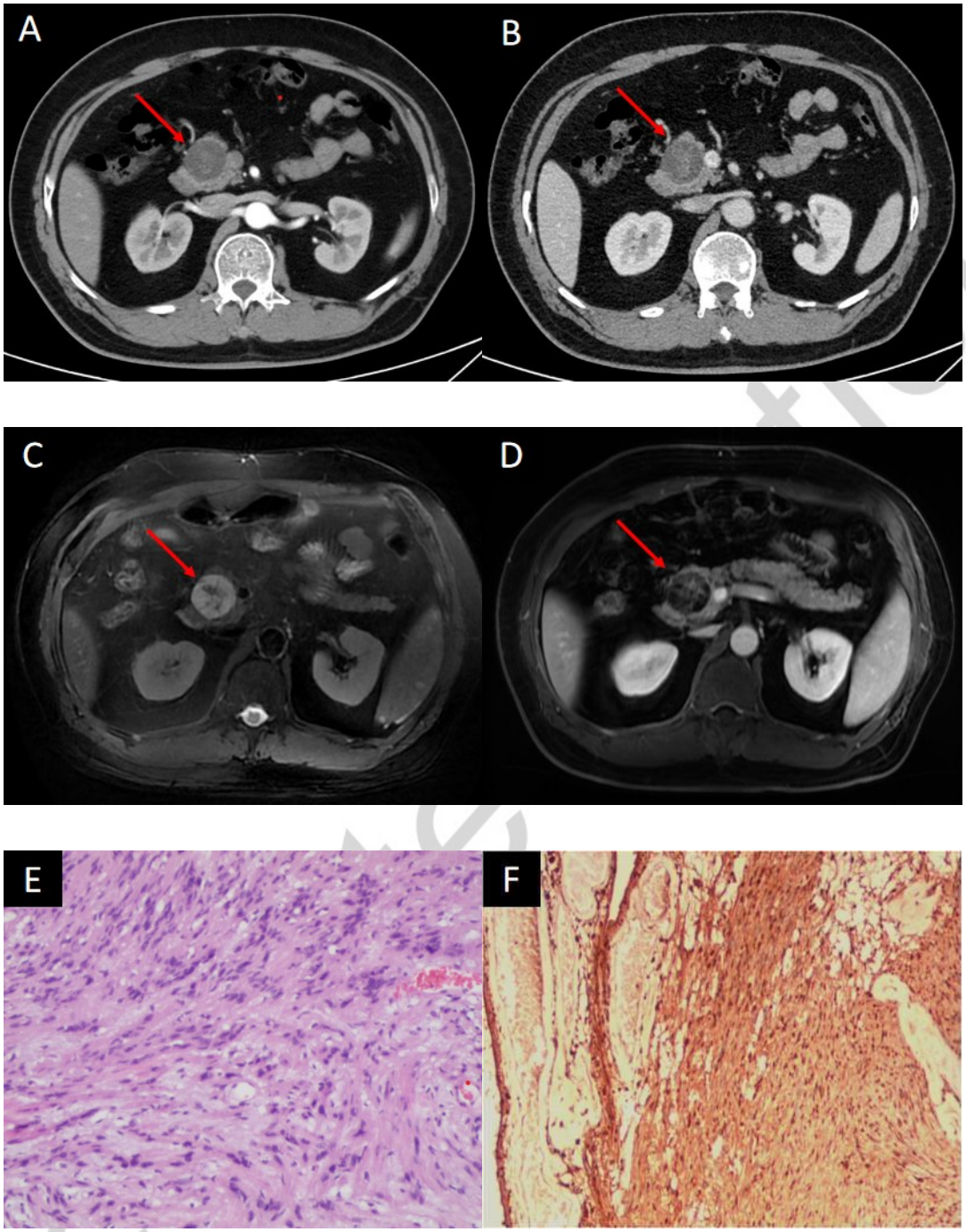

Fig. 1. A, B. Contrast-enhanced abdominal computed tomography images showing a 5 mm × 3-mm well-defined mass in the pancreatic head with heterogeneous enhancement on arterial and venous phases (red arrow). C. The mass displaying heterogeneous intensity on fat-suppressed T2-weighted image (red arrow). D. The mass displaying heterogeneous enhancement on fat-suppressed contrast-enhanced T1-weighted image (red arrow). E. Hematoxylin–eosin staining showed proliferating

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spindle-shaped cells arranged in a palisading pattern (HE, ×100). F. Immunohistochemical staining of S-100 protein was positive (×100).