Pleomorphic Liposarcoma of the Axilla Metastatic to the Pancreas

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Dear Sir,

Pleomorphic liposarcoma (PLS) is the less common histologic subtype of liposarcoma, with light-microscopic evidence of pleomorphic lipoblasts and a malignant fibrous histiocytoma-like or, less frequently, an epithelioid growth pattern. The epithelioid morphology may be mistaken for other epithelial neoplasms, such as renal or adrenal cortical carcinoma, and differ-

ential diagnosis may require ultrastructural analysis [1–3]. PLS is typical of adulthood with a strong predilection for the deep, soft tissues of the extremities, although many other sites (e.g. the retroperitoneum) can be involved. It clinically behaves as a high-grade tumor with elevated metastatic potential and a 5-year survival ranging from 30 to 50% [1–3]. Here we de-

scribe the case of a PLS metastatic to the pancreas observed at our institution in a 30-year-old man. His medical history was significant for a malignant mixed germ cell tumor of the right testis with aspects of immature teratoma, embryonal carcinoma and yolk sac tumor. Right orchiectomy was carried out in 2000, followed by chemotherapy with cisplatin, etoposide

Fig. 1. Representative hematoxylin and eosin-stained section of pancreatic PLS. **1A** Particular of a monster cell.

Fig. 2. Immunohistochemical analysis for S-100 protein showing weak positivity in pleomorphic lipoblasts.

and bleomycin. In 2005 the patient underwent excision of a mass in the right axilla, which was shown to be a PLS with focal epithelioid aspects. In particular, TSL/CHOP chromosomal rearrangement was negative. Six months later the tumor again recurred in the right axilla, and complete excision was achieved. Pathological examination with ultrastructural analysis confirmed the diagnosis of recurrent PLS. Chemotherapy with epirubicin and ifosfamide, as well as external beam radiotherapy (60 Gy) on the axilla were undertaken.

Follow-up was negative until June 2007, when contrast-enhanced computed tomography revealed a hypodense and hypovascular lesion of 35 × 40 mm in the body tail of the pancreas. There was no sign of vascular infiltration, and the patient was referred to our center to undergo surgical resection for what was thought to be a primary pancreatic tumor. Preopera-

tive transabdominal contrast-enhanced ultrasonography confirmed the finding, with the lesion being hypoechoic, hypovascular and partially fluid. Tumor markers were negative. Distal pancreatectomy with splenectomy was carried out, frozen section of the resection margins was negative for neoplastic cells. The postoperative course was uneventful, and the patient was discharged after 7 days. Macroscopic examination revealed a relatively well-demarcated, multinodular tumor measuring 45 mm in length, whitish to brown-yellow on sectioning. At the microscopic examination, the lesion contained large lipoblasts in a background of a high-grade pleomorphic sarcoma with epithelioid aspects (fig. 1, 1A). Infiltration of peripancreatic tissues as well as of the pancreatic parenchyma was demonstrated. Regional lymph nodes were negative. The mitotic rate was 10/10 HPF. Immunohistochemical analysis for S-100 protein was weakly

positive (fig. 2). No other adjuvant therapy was undertaken. After 20 months, the patient remains asymptomatic, no further recurrence was observed during routine follow-up.

Few cases of pancreatic liposarcoma have been reported so far [4, 5], and – to the best of our knowledge – this is the first description of a PLS metastasizing to the pancreas. According to current literature, patient age ≥60 years, high histologic grade, deep situation, tumor size ≥10 cm, mitotic rate ≥10/10 HPF and epithelioid morphology are associated with a poor prognosis [3]. As a final consideration, primary germ cell tumors with sarcomatous metastases have been described [6]. In this specific case, however, a relationship between the mixed germ tumor of the testis and the subsequent development of a PLS may just be speculated.

References

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