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ΑΡΧΕΙΑ ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2011, 28(2):283–284

Surgery Quiz – Case 8

G. Kostopoulos, C.E. Vagianos

First Department of Surgery, "Agios Panteleimon" Regional General Hospital of Nikea, Piraeus, Greece

A 42-year-old man presented complaining of vague, intermittent left lumbar pain. Clinical examination and laboratory tests were normal. The patient's history was free.

Abdominal ultrasound sonography revealed a 5 cm mass with mixed echogenicity in the left paraspinal region, and the CT-scan followed, also showed the 5 cm well-defined mass in the left paraspinal region at the L5 level (fig. 1). Magnetic resonance imaging (MRI) demonstrated a contrast enhancement, contrary to left psoas muscle that didn't have any scintigraphic uptake (fig. 2). The ovoid lesion was encapsulated, associated with L4–L5 interspinal space and seemed to derive from the spinal root (fig. 3). It demonstrated a cystic degeneration with surrounding collagenous fibrous tissue and was in close relation to L5 spinal root. A CT-guided fine-needle aspiration (FNA) was performed in order to establish a preoperative diagnosis of the tumor. The cytologic examination revealed typical features of benign schwannoma (fig. 4).

The patient was operated with extra peritoneal approach, through a left paramedian incision. The mass seemed to originate from the nerve root of L4–L5 lumbar spinal space and the excision was complete. Postoperatively, there was a leak of cerebrospinal fluid, probably caused by minor intraoperative laceration of the cerebrospinal canal. The patient's condition was improved with bed rest, paracetamol and hydration. He was discharged on the fifth postoperative day in a good condition, except of a sensory deficit at the site of the left lateral femoral region. The deficit was attributed to the intraoperative damage of a branch of the left L5 spinal nerve, during the removal of the mass.

Histology showed a well circumscribed spindle-cell tumor with hemorrhage and necrosis, cellular atypia but no mitotic figures, myxoid degeneration, and vessels with hyalinized walls, while S100 immunohistochemistry was strongly positive (fig. 5). Proliferative index Ki-67 was positive, but low.

COMMENT

The differential diagnosis of paraspinal lumbar masses includes a variety of lesions. Schwannomas, neurofibromas, meningiomas, ependymomas, sarcomas, gagglioneuromas, tumors arising from lymphoid, connective and bone tissue, abscesses, herniated discs, hematomas, spinal arteriovenous malformations and spinal aneurysms, as well as metastatic disease are included in the differential diagnosis.

Schwannomas or neurilemmomas comprise neurogenic benign tumors that derive from the nerve sheath, from the myelinated Schwann cells. They are rare encapsulated benign tumors, commonly located in peripheral nerves of limbs, head and neck. The first case of retroperineal schwannoma was described in 1954 and since then 0.7–2.7% of all primary schwannomas are found in the retroperitoneum and 0.5–1.2% of all retroperitoneal tumors are shown to be schwannomas. Cellular, glandular, epithelioid, melanotic and

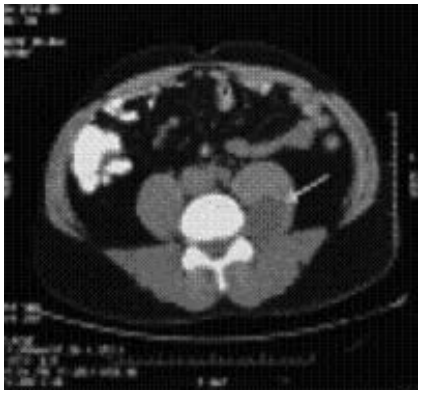

Figure 1

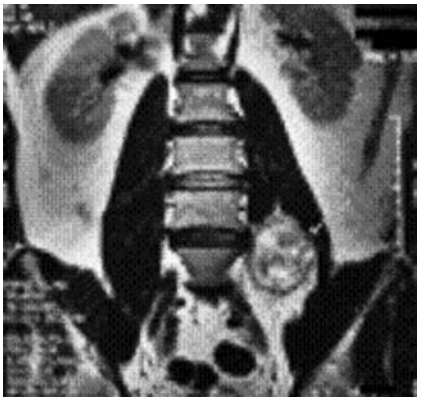

Figure 2

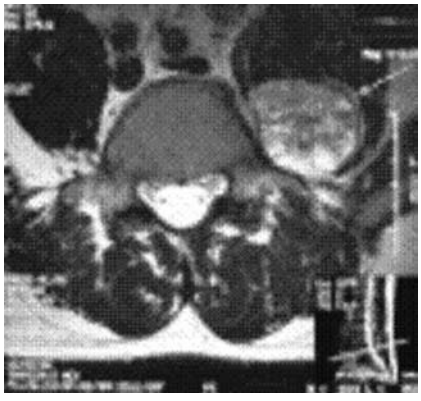

Figure 3

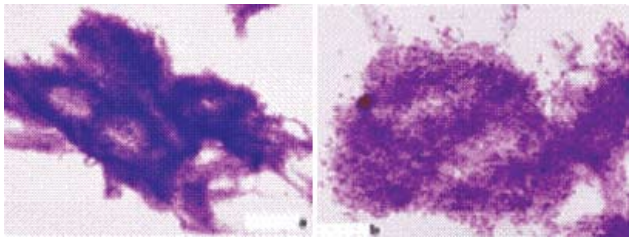

Figure 4

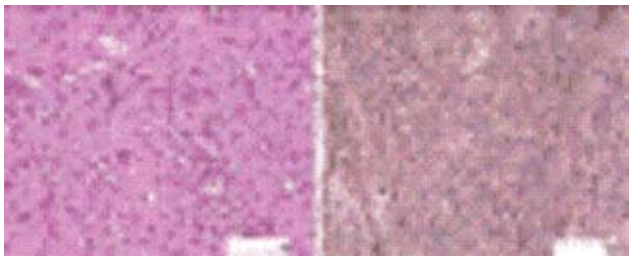

Figure 5

ancient types have been described.

Although non specific abdominal or back pain may occur, asymptomatic types are most common, thus making difficult diagnosis at an early stage. Motor or sensory signs may occur, as seen in our patient. Signs due to compression of neighboring structures, including dysuria and constipation, may also occur.

Although rare, approximately 1% of all retroperitoneal schwannomas are malignant, especially when combined with von Recklighausen's disease. Complete surgical excision is the best management in symptomatic patients, as our case, or when malignancy can not be excluded. In case of incomplete excision the tumor may recur.

The use of CT-guided FNA for preoperative diagnosis is supported by many studies. Its sensitivity, specificity and accuracy in mesenchymal tumors have been reported at approximately 90%. This was the case with our patient, where preoperative diagnosis of a benign schwannoma was successfully achieved by FNA, and this was later verified by histology.

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Corresponding author:

G. Kostopoulos, First Department of Surgery, "Agios Panteleimon" Regional General Hospital of Nikea, Piraeus, Greece, tel.: +30 2132 077 195, fax: +30 2132 076430
e-mail: gregkostopoulos@yahoo.gr