EURO RAD
Radiological Case Database

Case 1831
Presacral schwannoma

Vinhais S*, Cunha TM*, Félix A**

Section: Genital (Female) Imaging
Published: 2002, Nov. 24
Patient: 26 year(s), female

Clinical Summary

Nulligravida with a nontender right pelvic mass incidentally discovered. Preoperative abdominal and transvaginal US showed a solid lesion posterior to the uterus, adjacent to the right ovary.

Clinical History and Imaging Procedures

A routine gynaecological examination in an asymptomatic nulligravid woman revealed a nontender right pelvic mass. Abdominal and transvaginal US showed a solid lesion, posterior to the uterus, adjacent to the right ovary. At laparotomy the mass, which occupied the presacral region, was resected. The pathological diagnosis was schwannoma.

Discussion

Schwannomas (neurilemomas or neurinomas) are benign peripheral nerve sheet tumours that may develop nearly anywhere in the body, especially in the head, neck and extremities. Although 11% of schwannomas occur in the retroperitoneum, the pelvic retroperitoneum represents a very rare location. Retroperitoneal schwannomas occur mainly in young to middle aged adults as solitary slow-growing masses. As the symptoms appear late, these tumours may reach considerably large dimensions and usually present degenerative changes such as cyst formation and haemorrhage. Cystic changes have been highlighted as a common feature of retroperitoneal schwannomas. However, in the presented case, presumably because the tumour was smaller, US showed a solid lesion with a minimal cystic component.

The ultrasonic differential diagnosis in this case included haemorrhagic ovarian cyst, uterine leiomyoma, endometrioma and a para-ovarian complex cyst. Correlation to other imaging techniques, namely CT and MR, could have helped in the diagnosis.

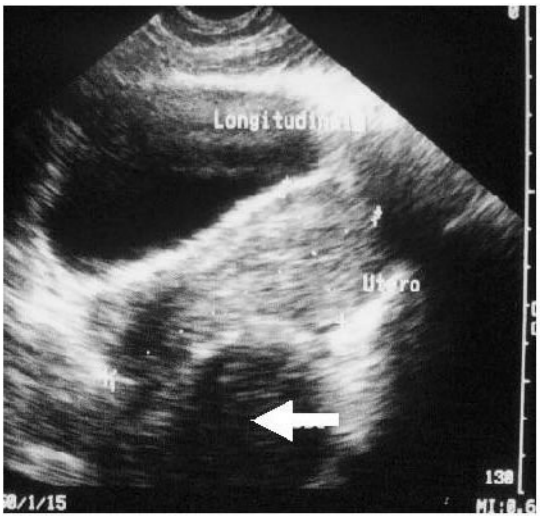
The treatment of choice for schwannomas is enucleation. When resection is incomplete, which it was not this case, recurrences may occur but malignant transformation is extremely rare. Although most schwannomas are sporadic, some occur in the setting of neurofibromatosis type 2. To exclude this disease, the patient in this case underwent a complete neurological examination and MRI of the neuroaxis, both of which were normal.

Final Diagnosis

Presacral schwannoma

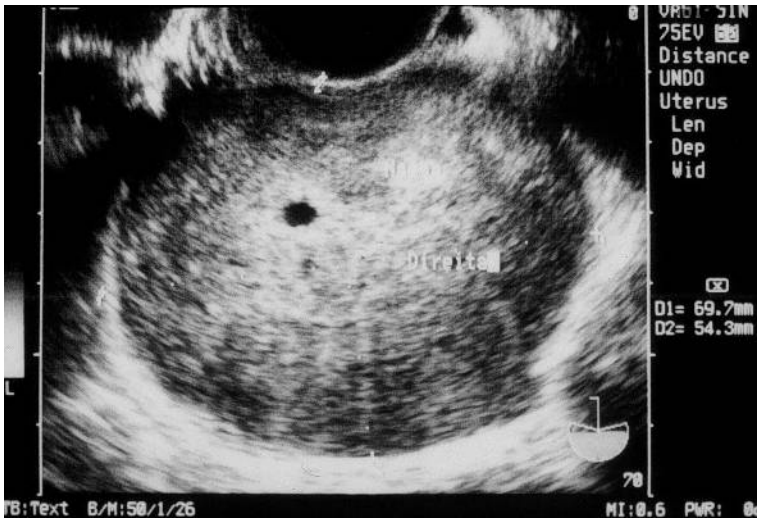
Figures

Figure 1 Abdominal US

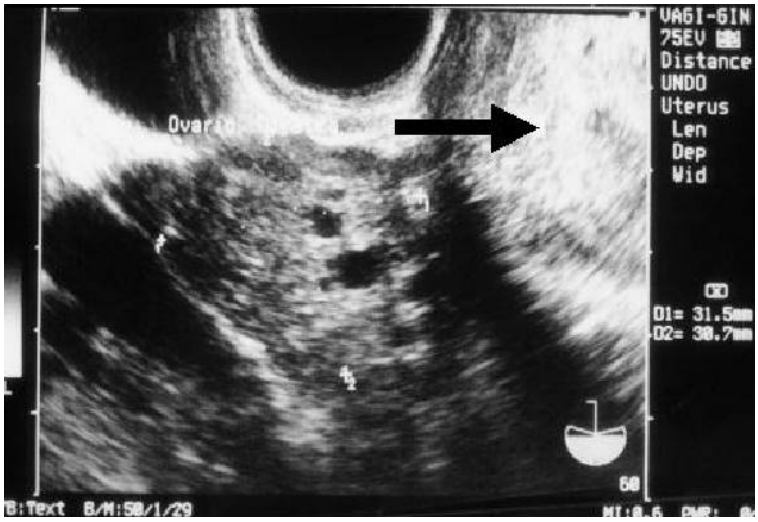


Longitudinal sonogram of the pelvis shows a marked hypoechoic solid lesion (arrow), posterior to the uterus.

Figure 2 Transvaginal US

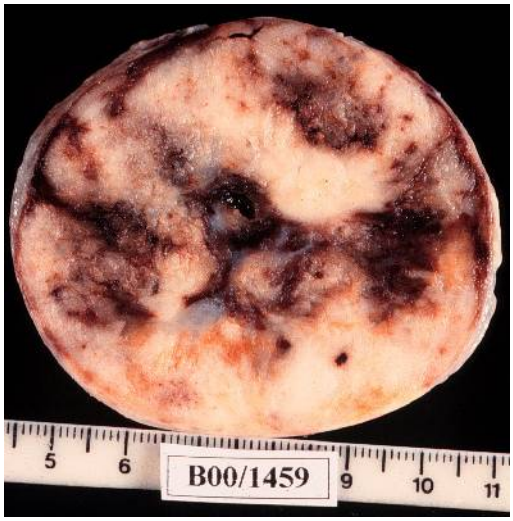


This sonogram displays a well-defined, hypoechoic moderately heterogeneous solid lesion, with a small central cystic area and posterior enhancement. It measures 7cm x 5.4cm.



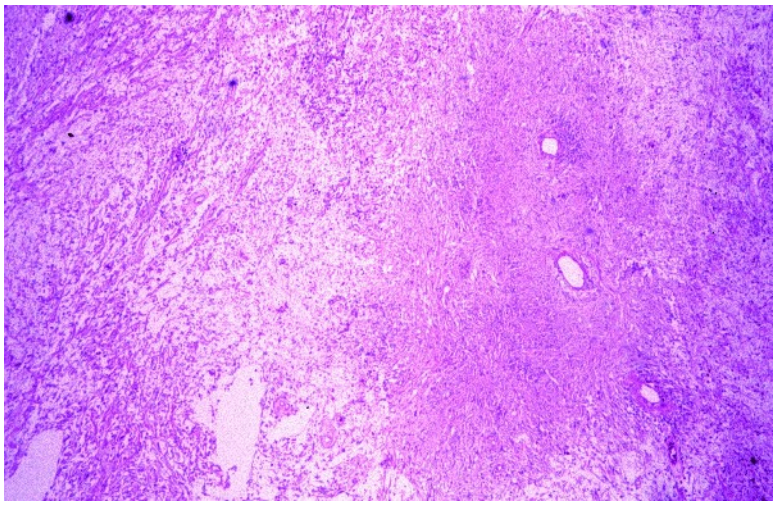
The lesion is partially seen here, adjacent to the right ovary.

Figure 3 Gross specimen



Tumour section: encapsulated tumour with haemorrhagic foci, measuring 8cm in the longest axis.

Figure 4 Photomicrograph (H & E, 40X)



The tumour was composed of alternating areas of compact cells (Antoni A areas) and less cellular zones presenting a loose matrix (Antoni B areas), a pattern consistent with a diagnosis of schwannoma.

MeSH

Neurilemmoma [C04.557.580.600.290]

A neoplasm that arises from SCHWANN CELLS of the cranial, peripheral, and autonomic nerves. Clinically, these tumors may present as a cranial neuropathy, abdominal or soft tissue mass, intracranial lesion, or with spinal cord compression. Histologically, these tumors are encapsulated, highly vascular, and composed of a homogenous pattern of biphasic fusiform-shaped cells that may have a palisaded appearance. (From DeVita Jr et al., Cancer: Principles and Practice of Oncology, 5th ed, pp964-5)

Pelvis [A01.673]

The basin-like area outlined by the hip bones and the vertebral column (SPINE).

References

[1] Kransdorf MJ. Benign soft-tissue tumors in a large referral population: distribution of specific diagnosis by age, sex, and location. AJR 1995 Feb;164(2):395-402.

[2] Kentopp K, Jones MA, DeCain M, Tarraza HM. Pelvic retroperitoneal schwannoma mimicking an ovarian neoplasm: report of a case and review of the literature. Eur J Gynaec Oncol 1998;19(1):57-9.

[3] Kuo CH, Changchien CS. Sonographic features of retroperitoneal neurilemoma. J Clin Ultrasound 1993 Jun; 21(5):309-12.

[4] Kim SH, Choi BI, Han MC, Kim YI. Retroperitoneal neurilemoma: CT and MR findings. AJR 1992 Nov; 159(5):1023-6.

Citation

Vinhais S*, Cunha TM*, Félix A** (2002, Nov. 24)

Presacral schwannoma {Online}

URL: http://www.eurorad.org/case.php?id=1831