

LAPAROSCOPIC RESECTION OF RETROPERITONEAL SCHWANNOMA

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Introduction

Schwannomas are tumors arising from well-differentiated schwann cells, which rarely occur in the retroperitoneal space. Most retroperitoneal schwannomas are benign and malignant ones are rarely seen. The lack of specific signs and radiologic imaging characteristics makes preoperative diagnosis rather difficult.

Clinical case

A 45-year-old woman presented with progressive right abdominal pain with dorsal migration, weight loss and night sweats for 1 month. Radiological imaging showed a **solid mass in the retroperitoneum**, in midline between celiac trunk and superior mesenteric artery (SMA) causing displacement of the pancreas and surrounding vessels, but no infiltration (fig. 1-4). EUS-FNA revealed a lesion consistent with a neurogenic tumor, without malignancy.

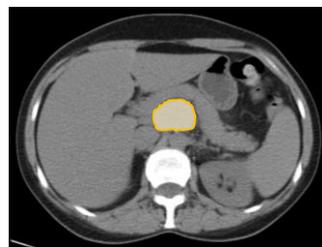


Fig. 1 - CT scan without contrast (axial): retroperitoneal lesion with 4.3x2.8x3.4 cm



Fig. 2 - CT scan with contrast (axial): heterogeneous enhancement by contrast; red - SMA, blue - IMV



Fig. 3 - CT scan with contrast (sagittal): relation with celiac trunk and SMA

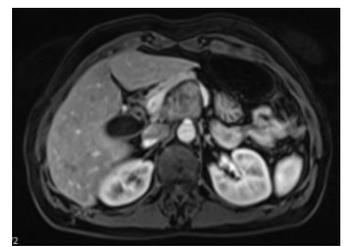


Fig. 4 - T1 weighted MRI scan with contrast (axial): no evidence of vascular invasion

The patient underwent laparoscopic exploration and complete surgical excision of the retroperitoneal tumor (fig. 5 and 6). Postoperative pathology diagnosis of the massa was proven to be a **benign retroperitoneal schwannoma**. Postoperative course of the patient was uneventful and after 12 month follow-up, no evidence of recurrence (fig. 8) or operation-correlated complication was observed.

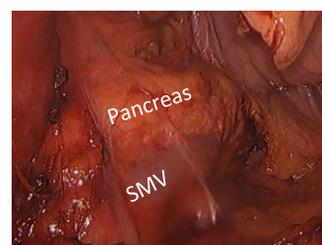


Fig. 5 - Laparoscopic exploration

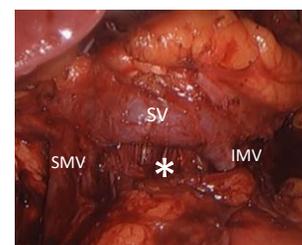


Fig. 6 - Laparoscopic exploration: * tumor



Fig. 7 - Macroscopic lesion



Fig. 8 - Postoperative CT scan with contrast (axial)

Discussion/ Conclusion

The differential diagnoses with schwannomas include fibrosarcoma, liposarcoma, ganglioneuroma, which have similar findings on CT and MRI scan. In this case, EUS-FNA was consistent with the final pathology examination. Considering malignancy cannot be excluded pre-operatively it is recommended that the management of retroperitoneal schwannomas is complete surgical excision with negative soft tissue margins. However, controversies still exist about whether excision of adjacent tissue and viscera is necessary or not. Laparoscopic excision and robotic resection emerge as promising surgical approaches, but the location and the size of tumors may affect the choice of surgical approaches.