

LAPAROSCOPIC EXCISION OF AN INTRA-ABDOMINAL SCHWANNOMA

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Schwannoma or neurilemoma is a well-defined, usually benign, tumor arising from the Schwann cell in the nerve sheath. It can present in any location as a solitary mass; however, it is rarely found in the abdomen.¹ We report a case of a benign schwannoma arising from the greater omentum, which was identified preoperatively by ultrasonography during investigation for symptomatic cholelithiasis. Cholecystectomy and excision of the tumor were performed by the laparoscopic method at the same time.

Case Report

While under investigation for symptomatic cholelithiasis, a 32-year-old Saudi female was incidentally found to have a 4.7 cm solid and cystic mass in the right subhepatic region on an ultrasound scan. A plain abdominal X-ray and routine hematological and biochemical investigations were all normal. Barium enema demonstrated extrinsic pressure on the hepatic flexure of the colon. Contrast-enhanced CT scan confirmed the presence of a well-defined round, low density, heterogenous mass related to the anterior and mesenteric aspect of the hepatic flexure (Figure 1). This was confirmed by MR imaging (Figure 2).

Laparoscopy was performed using a 10-mm umbilical port, a 10-mm epigastric port and two 5-mm ports; one in the right midclavicular line and another in the right anterior axillary line. The mass was found to be arising from the greater omentum and adherent to, but not infiltrating, the wall of the hepatic flexure of the colon. A routine laparoscopic cholecystectomy was performed first. The mass was then mobilized from the colon and the greater omentum with relative ease, using a combination of sharp dissection and electrocautery, and a large feeding vessel was clipped and divided. Once free, the tumor was placed in an endopouch introduced through the epigastric port. The epigastric port incision was extended to 4 cm and the tumor was delivered through it intact. The patient made an uneventful recovery

and was discharged from hospital three days later.

Histopathology showed the tumor to have alternating Antoni A and B areas with minimal mitotic activity (less than two per ten high power fields). There was no increase in cellularity or flexiform morphology. These features were all diagnostic of a benign schwannoma.

Discussion

Benign solitary schwannomas (neurilemoma) are uncommon tumors.^{2,3} They tend to occur in the head and neck, the extremities and on the trunk.⁴ Only rarely do they involve the intra-abdominal organs. There is a higher incidence in females and the age at presentation is between 30-60 years.⁴

Solitary intra-abdominal schwannoma usually remain asymptomatic and attain a considerable size before being discovered. Often, as in this case, they are discovered incidentally and are not clinically apparent. Characteristic CT findings of schwannoma have been reported.^{5,6} The mass

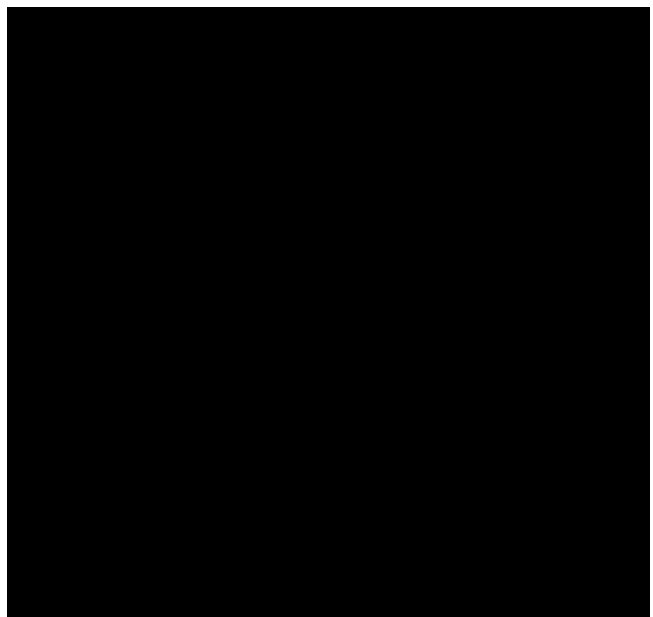


FIGURE 1. Contrast-enhanced CT scan showing well-defined round, low density, heterogenous mass.

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FIGURE 2. MRI confirmed the presence of a mass.

presents a heterogenous pattern with peripheral areas of enhancement on contrast examination. This heterogeneity corresponds with the histological appearances which show areas of hypocellularity, hypercellularity and cystic degeneration and, rarely, calcification.^{1,6} These tumors are

typically hyperintense on T2 MR images, as in this case. Although these features are typical of the tumor, they are not diagnostic and a final diagnosis can only be made histologically. Unless there is evidence of tumor spread or local invasion, there are no preoperative markers of malignancy.

Although laparoscopic surgery has expanded rapidly in the last few years, its role in the removal of tumors remains controversial. The decision to remove this tumor was made after close inspection with the laparoscope to assess ease of resection. We feel that it is important to seal the tumor off from the peritoneal cavity by sealing it in an endopouch before any attempt is made to remove it, to avoid the potential for seeding tumor cells into the peritoneum.

This report demonstrates that in selected cases, abdominal tumors can be removed safely by laparoscopic means by those with experience in the technique.

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