Schwannoma of the seminal vesicle

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A 61-year-old male presented with a five-month history of atypical left lower quadrant abdominal discomfort. There was no relevant past medical history and routine laboratory tests and physical examination were unremarkable. Work up included an abdominal CT of the lower abdomen. It revealed a well-delineated left intrapelvic soft tissue mass with some low attenuation areas, indistinguishable of the left seminal vesicle (Fig. A). He subsequently underwent a MRI of the pelvis. Axial T2-weighted MRI (Fig. B) demonstrated a well-encapsulated mass, indistinguishable of the left seminal vesicle and a normal appearance of the right seminal vesicle. Coronal T1-weighted MRI (Fig. C) with fat saturation after the injection of intravenous gadolinium revealed the avid contrast uptake of the lesion with a small non-enhancing cystic component. It also depicted the extrinsic compression of the mass on the sigmoid colon and rectum.

CT and MRI findings were strongly suggestive of a tumor with cystic degeneration, infiltrating in or originating from the left seminal vesicle. Surgical laparoscopic exploration with conversion to laparotomy demonstrated the mass, located on the course of the left vas deferens and originating from the left seminal vesicle. Total resection of the left seminal vesicle was needed.

Macroscopic examination of the specimen demonstrated a yellowish heterogeneous and encapsulated mass originating from the left seminal vesicle. Microscopic examination with immunohistochemical staining for S-100 protein revealed a strong and diffuse expression of the Schwann cell compatible with an ancient schwannoma. The patient could be discharged 5 days after surgery. The patient was free of recurrence 5 months after surgery.

Comment

A schwannoma is a benign peripheral nerve sheath tumour composed of Schwann cells. They are generally encountered in young and middle-aged adults and commonly located in the retroperitoneum, mediastinum, head and neck. Schwannomas are usually asymptomatic until they become large and compress the surrounding tissues or they are found incidentally. Schwannomas are exceedingly rare in the male genital system. Most primary tumours of the seminal vesicle are benign including papillary adenoma, cystadenoma, fibroma and leiomyoma. Primary malignant tumours include adenocarcinoma, leiomyosarcoma and haemangiosarcoma. Only few cases of seminal vesicle schwannoma have been reported in the literature.

Schwannomas are characterized by CT as well-circumscribed masses with variable heterogeneous densities due to areas of different cellularity and areas of cystic degeneration. The advantage of MRI is that it provides better tissue contrast than CT. However, preoperative diagnosis is difficult based on imaging studies alone due to the nonspecific presentation and imaging findings.

Most striking diagnostic feature in the presented case is the presence of cystic components in an otherwise predominantly solid tumour, well demonstrated on MRI. These imaging findings are suggestive for an ancient schwannoma.

Reference