Retroperitoneal Benign Mature Teratoma

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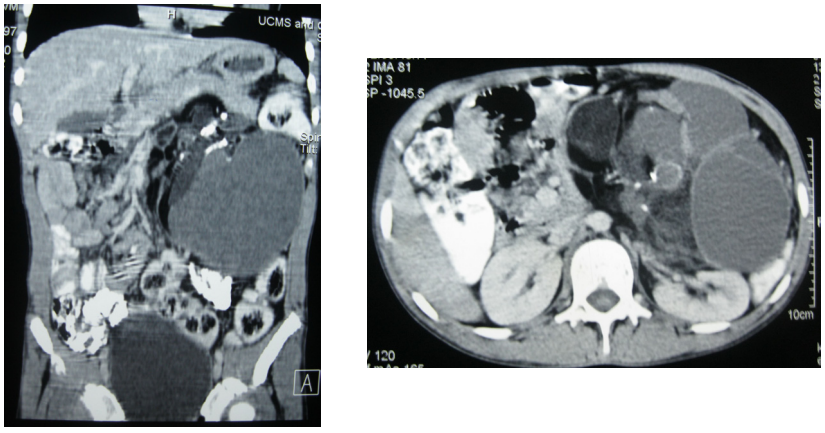

Figure 1. Contrast enhanced computed tomography of abdomen revealed a large lesion measuring 11.3 cm × 11.0 cm × 18 cm

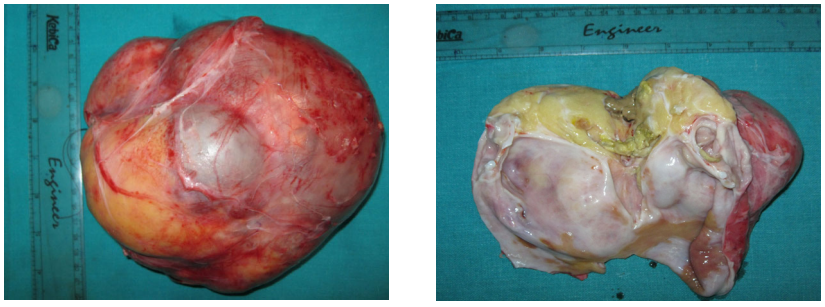

Figure 2. Gross examination, cut surface of the mass showed multiple cystic spaces filled with jelly like material

A thirteen- years-old-boy presented with complaints of gradually enlarging painless lump in left upper abdomen for one year. He did not have any urinary or bowel complaint. Physical examination revealed a firm, nontender lump with variegated consistency and well defined margins, occupying left hypochondrium, left lumbar, epigastric and umbilical region, with side to side mobility. Lump was not manually palpable. Contrast enhanced computed tomography of abdomen revealed a large lesion measuring 11.3 cm × 11.0cm × 18 cm was occupying a major part of left upper abdomen in peripancreatic region, causing displacement of bowel loops and left kidney posterinferiorly. (**Figure 1**) It showed peripheral enhancement with areas of hypo-attenuation (-2 HU to -13 HU) and hyper-attenuation (300-700 HU) suggestive of cystic lesion with fat and calcific foci. Thin septa were seen within the lesion with no evidence of haemorrhagic foci. A preoperative

diagnosis of mesenteric dermoid cyst was kept based on physical and radiological findings. The patient underwent exploratory laparotomy that showed a 18cm x 25 cm mass in retroperitoneum pushing transverse colon and descending colon forward. The mass was extending behind the pancreas and inferiorly extending down to the bifurcation of aorta. The mass was completely excised. On gross examination, cut surface of the mass showed multiple cystic spaces filled with jelly like material. (**Figure 2**) Histopathological examination confirmed the diagnosis of retroperitoneal benign mature teratoma. The patient is asymptomatic at 9 months follow up.

Retroperitoneal teratomas comprise 3.5 – 4% of all germ cell tumours in children. Teratomas arise from germ cells that fail to mature normally in the gonadal locations. These totipotent cells can differentiate into tissue components representing derivatives of mesoderm, ectoderm and endoderm.[1] The distribution of teratomas are described in order of decreasing frequency, in the ovaries, the testes, the anterior mediastinum, the retroperitoneal space, the presacral and coccygeal areas, pineal and other intracranial sites, the neck and abdominal viscera other than the gonads.[2] Retroperitoneal teratomas are often located near the upper pole of the kidney, with a preponderance on the left side. Retroperitoneal teratomas are usually asymptomatic. The differential diagnosis of retroperitoneal teratomas include ovarian tumors, renal cysts, adrenal tumors, retroperitoneal fibromas, sarcomas, hemangiomas, xantogranuloma, enlarged lymph nodes and perirenal abscess.[3] Plain abdominal film shows a tissue mass and calcification. Sonography can identify the cystic, solid or complex components of the tumor. CT is better than sonography in defining the teratoma extent to the surrounding organs and in evaluating the cyst wall.[4] Magnetic resonance imaging is superior to sonography and CT to demonstrate the anatomical relationship with surrounding structures like abdominal aorta.[5] Macroscopically, teratomas can be divided into either cystic or solid. Cystic teratomas are mostly benign, containing sebaceous materials and mature tissue types. On the other hand, solid teratomas are usually malignant and composed of immature embryonic tissues in addition to adipose, cartilaginous, fibrosis and bony components.[6] The prognosis is excellent for benign retroperitoneal teratoma if complete resection can be accomplished.

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