Giant Retroperitoneal Mature Teratoma in young Male, An Atypical Variant: A case report

INTRODUCTION:

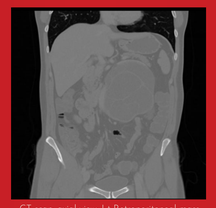
Teratoma are congenital tumors, consisting of derivatives from ectoderm, mesoderm and endoderm and germ cell layers . While majority of teratoma present congenitally in midline in sacrocoxygeal region , usually in ovaries of females and in testis of young adult males . Primary retroperitoneal mature teratoma are exceedingly uncommon after 50 years of age only 7 cases has been presented in literature so far. Retroperitoneal teratoma was first described by Morgagni in year 1769 . We report a rare case of young adult males who presented with huge retroperitoneal mass, multiple controversial diagnosis were made on pre-operative evaluation. Final diagnosis of retroperitoneal teratoma was established on histological evaluation.

CASE REPORT:

35 years old male presented to us with history of pain in left loin, since childhood, was treated by local GP symptomatically. 5 years before he was advised USG abdomen for Lt lumber pain, that revealed cystic lesion of left kidney was treated symptomatically. From last 6 months patient was feeling dull pain in left loin non radiating continuous and progressive. physical examination revealed huge palpable mass of left kidney. CT scan abdomen showed huge 14cm non enhancing multispetated cystic mass arising from left kidney, displacing left pelviureteic junction. Radiologist suggested it seems to be Lt renal tumor. Pt was referred to urologist for further management, but urologist was not convinced with the diagnosis of renal tumor, moreover due to poor quality of CT scan, repeat ct scan performed. That revealed 14x10x13cm mass present anterior to left psaos muscle displacing left kidney, most likely diagnosis of lympangioma was made. But primary surgical team was still ambiguous about radiological diagnosis, and second opinion from another radiologist was sorted out. This time radiologist pointed toward hydatid cyst. All hematological and serum assays were all normal with normal LDH and tumor markers for gondal tumours. So patient counseled and explored, intra operatively mass was located behind left kidney and encroaching left side of pelvis. So, mass excised in toto from adjacent structures. histological slides of cystic mass stratified squamous epithelium with underlying sebaceous tissue with skin adenxal structure. In addition to this cartilage, neural tissue and respiratory epithelium was also identified, So finally the diagnosis of mature retroperitoneal teratoma was established. Patient is doing well at the time of reporting, and following up in our surgical clinic.



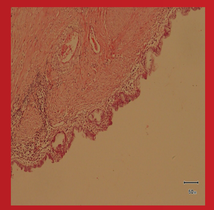
CT scan Coronal view: Lt retoperitoneal suprarenal mass



CT scan: axial view: Lt Retroperitoneal mass displacing adjacent structure



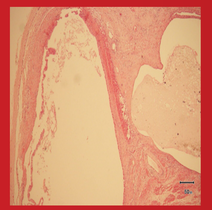
Intraoperative picture of resected retroperitoneal mass



specimen slide showing respiratory epithelium



Specimen slide showing sebaceous glands



Specimen slide showing cartilaginous tissue

DISCUSSION:

Teratomas are the most common type of germ cell tumor in humans, and most of these benign neoplasm. They are typically classified into three general categories: mature (cystic/solid, benign), immature (malignant), and monodermal (highly specialized) . Retroperitoneal teratoma is rare entity, representing only 1%–11% of all primary retroperitoneal tumors. Incidence is bimodal with peaks in the first 6 months of life and in early adulthood. Due to their location, they are usually identified only after they have grown to huge proportion .Retroperitoneal teratoma usually are 2 times more common in females as compared to males. usual location of occurrence is on upper pole of left kidney. Mostly these tumors are asymptomatic, but they can cause abdominal pain, nausea vomiting and compression of surrounding structure .Diagnosis of retroperitoneal teratoma is usually made with the help of CT scan or MRI imaging .Differntial diagnosis of retroperitoneal teratoma could be divided into solid and cystic components. In addition to this including other pathologies like retroperitoneal lipoma,liposarcoma, malignant fibrous histiocytoma, paraganglioma and ganglioneuroma3. Surgical resection remains the mainstay of treatment for mature teratomas.Excision is required for definitive diagnosis. Resection is planned according to pathological grade and extent of tumour. Resection includes part of GI tract , kidney, bladder, spleen aorta and part of vena cava . Sometimes these patients presents with shock , hemorrhage and granulomatous adhesion formation in case of rupture 4. Disease free survival of patient depends upon completeness of resection. Due to increased malignant transformation of teratoma to carcinoma or sarcoma , so unresected teratoma may result in late relapse. Those with relapse, are usually poor responders to chemotherapy .

CONCLUSION:

Retroperitoneal mature cystic teratoma are extremely rare entity. Primary gonadal tumors with retroperitoneal metastasis should be excluded. Complete surgical resection of tumor is necessary to evaluate whether they are immature and solid elements with long term follow up due to increased risk of malignancy.

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