Abstract:
We are reporting a rare case of giant cystic leiomyoma causing diagnostic dilemma of confusion for clinician, radiologist as well as pathologist. A thirty three year old female presented with history of pain and distension of abdomen since one month with reduced appetite and frequency of micturition. She was taking treatment for hypertension and diabetes since one year. Sonography and CT examination showed a large cystic mass. The preoperative diagnosis of primary malignant ovarian tumor was made though all laboratory investigation including CA-125, CEA were within normal limit. The patient underwent exploratory laprotomy but there also organ of origin couldn’t be determined due to extensive adhesions. Removal of mass along with hysterectomy with bilateral salphingo-oophorectomy was done. The histology revealed benign spindle cell neoplasm which was confirmed as a leiomyoma with cystic degeneration on IHC. To conclude, while dealing with large intra-abdominal tumor differential diagnosis of the common fibroid should always be kept in mind when investigation are not correlating with size of tumor, so that extensive surgery in young age will be avoided.

Key words: Cystic, Giant, leiomyoma

Introduction:
Uterine leiomyoma are not only the commonest tumors in the female genital tract, but also the commonest tumors in the whole body. The typical appearances of leiomyomas are easily recognized on imaging. However, the atypical appearances that follow degenerative changes may cause confusion in diagnosis. We report a rare case of giant cystic leiomyoma causing diagnostic dilemma of confusion for clinician, radiologist as well as pathologist.

Case History:
A thirty three year old woman presented with history of pain and distension of abdomen since one month. There was history of reduced appetite, early satiety and frequency of micturition. She was taking treatment for diabetes and hypertension since 1 year. Abdominal examination revealed a huge abdominal...
mass occupying hypogastrium, umbilical region and reaching upto epigastrium. Per vaginal and per rectal examination were normal.

Abdominal and pelvic sonogram revealed large cystic mass, approximately 28 x 20 x 10 cm in size, occupying the whole inferior abdomen with minimal ascitis. CT abdomen showed 29 x 22 x10 cm multilobulated hypodense mass lesion in the lower abdomen and pelvis. Lesion was multiloculated and contains multiple irregular enhancing septations and solid areas. Ovaries were not appreciated separately from the lesion. There were no nodal or distant metastasis. Although organ of origin could not be identified, the sonographic and CT findings were highly suspicious of a primary malignant ovarian tumor, most likely mucinous cystadenocarcinama or adenexial tumor. However, tumor markers like CA 125 and CEA were within normal limits. Pap smear and results of routine laboratory testing were also normal.

On exploration, a large cystic mass was seen in the lower abdomen and pelvis which was adherent to right ovary and mesentry. Mass was also attached to uterine fundus by a small pedicle, so origin of tumor again could not be confirmed and it caused diagnostic dilemma. Clinician suspected it as malignant tumor due to its extensive adhesions. So mass was removed along with total hysterectomy and bilateral salpingo-oophorectomy. Grossly we received a smooth multiloculated cystic mass measuring 30x20x9 cm with yellowish brown contents of fluid consistency. Few solid areas measuring 2 to 3cm in diameter are also seen. Cut surface of this solid area was firm, grey white along with tiny cystic spaces and focal haemorrhagic areas. Uterus, cervix, bilateral ovaries and bilateral fallopian tubes all were unremarkable.

Histopathological examination revealed a neoplasm composed of benign spindle shaped cells with extensive cystic degeneration. Staghorn branching vascular pattern is also seen.

We kept differential diagnosis in our mind as leiomyoma with cystic degeneration and hemangiopericytoma or solitary fibrous tumor due to staghorn branching vascular pattern. HPC like focal area without atypia led to diagnostic dilemma, hence further IHC was done which showed strong diffuse positivity for desmin and negativity for CD-34 in tumor cells. So, uterine leiomyoma with cystic degeneration was our final diagnosis.

Figure 1: Large cystic mass measuring 30x20x9 cm

Figure 2: CT Image showing multilobated cyst along with multiple septations
Discussion:

Leiomyomas are most common uterine neoplasm and are composed of smooth muscle with varying amounts of fibrous connective. It is classified on the basis of location into submucosal, intramural and subserosal [1]. It may be pedunculated and simulate ovarian neoplasm.

As Leiomyoma enlarges, they may outgrow their blood supply resulting in various types of degeneration including hyaline (60% of cases, most common) cystic, myxoid, red degeneration and dystrophic calcification [2]. The type of degeneration depends on degree and rapidity of onset of vascular
insufficiency. Cystic degeneration observed in about 4% of leiomyomas, may be considered an extreme sequel of oedema [3].

Sonography provides simple and noninvasive means of diagnosing uterine leiomyomas. In USG, the relative ecogenecity of leiomyoma depends on the ratio of fibrous tissue to smooth muscle, the extent of degeneration and the presence of dystrophic calcification [4]. Degenerative changes further result in unusual and heterogenous appearance that add to diagnostic confusion [5].

A large cystic pedunculated uterine leiomyoma of uterus may mimic a primary malignant ovarian tumor on sonography and CT and might undergo extensive surgery like total hysterectomy and bilateral salpingo-oopherectomy by mistake [6], as happened in our case.

Case reports of predominantly pedunculated cystic uterine leiomyoma mimicking an ovarian tumour on sonography and CT are rare. In our case, patient presented with abdominal lump that was solid-cystic in nature and showed atypical imaging features of very common uterine tumour in terms of appearance and location and its mimicry of primary cystic epithelial ovarian tumour. Pedunculated lesion can have obscure origin may be mistaken for lesion of ovarian origin [5], as in our case. After investigation it appeared to be benign mass although organ of origin could not be determined even on exploratory laprotomy as it was attached to mesentry, ovary and uterus through adhesions.

However the final diagnosis in our case was established after histopathological examination and IHC.

Conclusion:

A large degenerated leiomyoma can have non-specific symptoms like ovarian tumor and it may mimic ovarian tumor on examination as well as on sonography. While dealing with a large intra abdominal tumour, differential diagnosis of the common fibroid should always be kept in mind, when investigations and CA-125 values are not correlating with the size of the tumour. So, that extensive surgery in young age can be avoided.

Uterine leiomyoma on histopathological examination can show combined features of cystic degeneration and HPC like vascular pattern.

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