

RESEARCH ARTICLE

A RARE CASE OF SUBSEROSAL LEIOMYOMA WITH CYSTIC DEGENERATION MIMICKING AN OVARIAN NEOPLASM-CASE REPORT

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Manuscript Info	Abstract
Manuscript History Received: 05 April 2020 Final Accepted: 07 May 2020 Published: June 2020	 Introduction: Leiomyoma of the uterus is the most common tumor arising from uterine smooth muscle. The size varies from microscopic to giant. We report an unusual case of a large leimyoma with cystic degeneration mimicking an ovarian neoplasm. Presentation of case: A 39-year-old Multiparous woman presented with a history of dull aching lower abdominal pain for a period of 1 months. She had no history of serious illness or surgical procedures and no family history of genitalmalignancy.She is known case of hypothyroidism and oneltroxin 100 mcgper day since 1 year treatment.On Clinical PV examinationrevealed uterus around 24 weeks size with the restricted mobility .Mass felt was of a variable consistency. Sonography examination showed Uterus normal .right adnexal mass 125x89x106m withlow resistance vascularity. MRI Pelvis report showed Large well defined encapsulated T2 hyperintenselesion withintralesional enhancing from like soft tissue component and septa along the inferior aspect of lesion arising from the right adnexa and extending into the lower abdomen, abutting the both ovaries posterolaterally and relation with the adjacent structure as described above- likely represent right adnexal cystic neoplasm. However, the possibility of exophytic ovarian neoplasm cannot be be completely excluded. Blood Investigation shows Alpha feto protein-2.7ng/ml,CA-125-13.60u/ml,CEA-0.8ng/ml,B-HCG-<1.2mIU/ml. With clinical examination and sonography and MRI diagnosis of ovarian cancer. The patient underwent laparotomy, After opening the abdomen there was mass of about 24 weeks size pregnancy. Seems to be related to bladder. So, cystoscopy was performed by urologist.findings on cystoscopy shows normal urethral opening,normal ureteral opening.

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Once we we excluded any lesionin the bladder.Cyst was enucleated from the anterior wall of the uterus while during dissection cleavage was found with minimal bleeding,followed by abdominal hysterectomy and removal of both sides of fallopian tubes..The histology revealed a subserosalleiomyoma with cystic degeneration.

Discussion: Cystic degeneration of subserosal fibroid of uterus mimicsovarian tumor both clinically and ultrasonographically and MRI also.

Conclusion: cystic degeneration of subserosalleiomyomas should be considered in the differential diagnosis of a multilocular and predominantly cystic adnexal mass

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Introduction:-

There is, perhaps, no pathological condition which has received greater attention of late years from gynecologists¬ than that known as fibroid disease of the uterus. The above sentence has been quoted in British medical journal by DrProtheroe Smith long back in 1872, impressing upon the well known history of fibroid uterus.1

Leiomyoma of the uterus is the most common tumor, which arises from uterine smooth muscle. Such tumors are found in nearly 50% of women over age 35. The prevalence increases during reproductive age and decreases after menopause. The size varies to a great extent from microscopic to giant. Giant myomas are exceedingly rare nowadays. Appropriate surgical management¬ is necessary to obtain a good result after removal. Here, we present a case of a woman with subserosal uterine leiomyoma that had undergone cystic degenerative changes, mimicking an ovarian tumor.

Resentation Of Case:-



Fig. 1:- Preoperative picture of the patient, impressing upon thesize of the tumor .

A 39-year-old Multiparous woman pre¬sented with a history of dull aching lower abdominal pain for a period of approximately 1 months. She had no history of serious illness or surgical procedures and no family history of malignancies. Her vital signs were all within normal limits. Abdominal examination revealed a abdominal mass quite obvious from the figure given below (Fig. 1).

No abdominal tenderness was present. Dull note over the mass without any shifting dullness was suggestive of cystic swelling. The external genitalia and uterine cervix were normal, Pelvicexamination revealed bulky uterus around 24 weeks size with the fornices of the vagina were free. It was difficult to specify the origin of the tumor. An abdominal Sono¬graphy examination showed Uterus normal .right adnexal mass 125x89x106m with low resistance vascularity. MRI PELVIS report showed Large well defined encapsulated T2 hyperintenselesion withintralesional

enhancing frond like soft tissue component and septa along the inferior aspect of lesion arising from the right adnexa and extending into the lower abdomen, abutting the both ovaries posterolaterally and relation with the adjacent structure as described above- likely represent right adnexal cystic neoplasm. However, the possibility of exophytic ovarian neoplasm cannot be be completely excluded. mild free fluid in pouch of doughlas

*evidence of mucosal irregularity with small t2 hyperintensenabothian cyst in the cervix- likely cervicitis. *evidence of marked atrophy of B/L pelvic and gluteal muscle (R>L)





Fig. 2:- Contrast- enhanced computed tomography of abdomenshowing a large cysticmass almost filling the whole abdomen.

The results of routine laboratory testing including a complete blood count, serum electrolyte levels, tests of liver and renal function and the tumor markers were within normal limits. Pap smear showed no atypical cell.

From clinical examination, sonographicfinding,MRI findings and tumor marker, a benign ovarian tumor was the most likely diagnosis.

Under all asepsis abdomen opened with vertical incision. After opening the abdomen there was mass of about 24 weeks size pregnancy. Seems to be related to bladder. So, cystoscopy was done. Bladder was normal. Cyst was enucleated from the anterior wall of the uterus then followed by abdominal hysterectomy and removal of both sides of fallopian tubes.Bilaterla ovaries looks normal hence preserved. The specimen was sent for histopathological evaluation. A closed drain was placed into the pelvis after obtaining hemostasis. There was no intraoperative complication. The drain was removed on the first post¬ operative day, postoperative hospital stay was uneventful and the patient was discharged on 5th postoperative day.

Gross pathologic examination revealed a cystic mass from uterine anterior wall measuring 10x7.0x4.0 cms.Outer surface is congested.Cutsurfacece is partially cystic and pratiallysolid.Cut surface is greyish white to greyish brown.cyst is multilocular filled with mucoid material. mass arising from the wall of uterus, measuring $35 \times 35 \times 25$ cm with brownish liquid contents. The uterus was enlarged to $15 \times 12 \times 11$ cm. On cut section, it was revealed that the cavity of the cystic lesion was extending into myometrium. The

myometrium was hypertrophic with normal endometrium and endocervical canal. Bilateral ovaries and tubes were normal (Figs 3 and 4).



Fig. 3:- Postoperative specimen showing enlarged uterus withhealthy bilateral tubes and ovaries, the huge cyst was arising from the posterior wall of uterus.



Fig. 4:- Cut-open specimen of uterus shows the intramural fibroid, and the inserted index finger shows the communication of cyst into the myometrium.

Microscopic examination revealed leiomyoma with areas of cystic degeneration. Histologic signs of malignancy were not found. The final diagnosis of subserosal uterine leiomyoma with cystic degeneration was made (Fig. 5).



Fig. 5:- Microscopic picture with 40× magnification showingcystic degeneration with adjacent leiomyoma.

Discussion:-

Based on location, leiomyomas are classified as sub \neg mucosal, intramural or subserosal. The latter may be pedunculated and simulates ovarian neoplasms. Large uterine fibroids can cause pain, constipation, increased frequency of micturition and menstrual bleeding. They can also affect reproduction by causing infertility, mis \neg carriage and/or premature labor. As leiomyomas enlarge, they can outgrow their blood supply, resulting in various types of degeneration, such as hyaline, cystic, myxoid or red degeneration and calcification. Hyalinization is the most common type of degeneration, occurring in up to 60% of cases. Cystic degeneration, observed in about4% of leiomyomas, may be considered extreme sequelae of edema.2 Rapid growth of leiomyoma, caused by its transformation into sarcoma, takes place in about 0.1 to0.8% of all cases.

Nonovarian cystic pelvic lesions that may be consi¬dered in differential diagnosis of ovarian neoplasm include peritoneal inclusion cysts, paraovarian cysts, mucocele of appendix, hydrosalpinx, subserosal, or broad ligament leiomyomas with cystic degeneration, cystic adenomyosis, cystic degeneration of lymph nodes, hematoma, abscess, spinal meningeal cysts, and lymphoceles, retroperitoneal leiomyomas.3-8

Four percent of fibroids undergo cystic degeneration with extensive edema forming cystic, fluid-filled spaces. In such cases, vessels bridging the mass and the myo¬metrial tissue, termed bridging vessel sign is useful in diagnosing the case as leiomyoma.

The preferred imaging modality for the initial eva¬luation is ultrasonography because it is the least invasive and the most cost-effective. The relative echogenicity¬ of leiomyomas depends on the ratio of fibrous tissue to smooth muscle, the extent of degeneration and the presence of dystrophic calcification. A CT scan can be useful; however, leiomyomas are indistinguishable from healthy myometrium unless they are calcified or necrotic.

Although fibroids usually have a characteristic sonographic¬ appearance, degenerating fibroids can have variable patterns and pose a diagnostic challenge. A pedunculated, subserosal uterine leiomyoma withextensive cystic degeneration can mimic an ovarian tumor. Magnetic resonance imaging may be helpful in complicated cases but, availability and high cost are serious limitations, so should not be used indiscriminately. Clinical and sonographic correlation, together with knowledge of the variable sonographic appearance of degenerating fibroids, generally can lead to the correct diagnosis of uterine leiomyoma.8

Pelvic magnetic resonance imaging may be helpful in these cases, since it clearly demonstrates tumor number, size, location, and the presence and extent of degeneration.9,10

The 'age index' shows that normal uterine tissue has certain age-dependent stiffness that increases with age. The 'lesion index' allows for the assessment of the presence of a uterine fibroid or adenomyosis and helps to differentiate between both focal findings. Thus, the use of elastography in addition to conventional ultrasound

could help to diagnose uterine focal lesions and may be useful in preoperative planning.11

Sonography may or may not be able to focus the details needed for differentiation between ovarian and extraovarian masses because of many factors, such as

(1) limited field of view and (2) inability to view the relationships of large masses with the uterus or ovary. In this case, sonography was unable to find the origin due to complexity Therefore, the impression was that of a ovarian cyst..Elastography in addition to conventional ultrasound could help to diagnose uterine focal lesions and may be useful in preoperative planning.

Conclusion:-

Although fibroids typically have a characteristic ultra \neg sonography (USG) appearance, degenerating fibroids can have variable patterns and pose diagnostic challenges. This case represents an unusual case of a pedunculated leiomyoma masquerading as an adnexal mass. Peduncu-latedleiomyomas \neg should be considered in the differential diagnosis of a multilocular and predominantly cystic adnexal mass.

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