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Case Report

Degenerated fibroid: a diagnostic dilemma

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ABSTRACT

Leiomyoma is one of the most commonly encountered benign gynaecological neoplasms. With a wide range of symptoms, sometimes even asymptomatic, these tumors are easy to diagnose and treat, unless there are degenerative changes, which makes them difficult to diagnose and differentiating them from other serious conditions including malignancy, thereby, complicating their management also. Here, the case present to you a case of 48-year-old women with symptoms and clinical examination suggesting fibroid uterus but imaging studies inconclusive to differentiate fibroid uterus with ovarian malignancy, thus, creating a diagnostic dilemma. Ultimately, patient underwent exploratory laparotomy, keeping possibility of ovarian malignancy. Histopathological examination of the specimen of total abdominal hysterectomy with bilateral salpingo-oopherectomy concluded extensive cystic degeneration of leiomyoma and no evidence of malignancy.

Keywords: Degenerated myoma, Laparotomy, Leiomyoma, Malignancy, Ovarian mass, Ovarian malignancy

INTRODUCTION

Leiomyoma is the most common benign gynecological neoplasm occurring 60-70% of women. They are believed to be asymptomatic in 30% of the women older than 30 years of age.[1,2] Usually women suffering with leiomyoma complaints of heavy menstrual bleeding, infertility, pressure symptoms in case of larger masses or severe acute pain in case of torsion of a pedunculated fibroid. Ovarian malignancies, on the other hand accounts for an estimated 239,000 new cases worldwide, annually.[3]

Women suffering from ovarian malignancy usually have pressure related symptoms. Here, the case present to you a case of degenerated leiomyoma which presented to us as a case of suspected ovarian malignancy and became a diagnostic dilemma for both the clinicians and the radiologists.

CASE REPORT

A 48-year-old lady, parity 4, presented to us with complaints of lower abdomen pain and heaviness for 1 month and bloating for 20 days along with increased frequency of micturition. The pain was insidious in onset and dull aching. There was history suggestive of decreased appetite and early satiety. There was no history of burning micturition or dysuria. Her menstrual history reviled regular moderate menstrual flow for 3-4 days in 28-30 days with no history of dysmenorrhea. She had undergone laparoscopic cholecystectomy 20 years back and open appendicectomy 10 years back.

Examination

General condition was fair and vitals were stable. No lymphadenopathy, no pallor was noted. Bilateral

crepitations were heard on auscultating bilateral lung fields. No abnormality detected in cardiovascular system.

Per abdomen

no ascites was noted, no dilated vessels noted. Suprapubic mass of approximate 18 weeks size was noted mainly on the right side of the midline. The mass was firm, non-tender with bosselation and restricted mobility. Lower pole of the mass could not be reached.

Per speculum/per vaginal/ per rectal examination

Vagina looked healthy. Cervix was placed high up. Uterus of about 10-12 weeks size was felt. A firm to hard lump was felt in the right lateral fornix separately from the uterus. Cystic fullness was felt in the posterior fornix which was non-mobile and non-tender. Rectal mucosa was free.

Investigations

Routine examinations were all within normal limits. Ca125 was slightly elevated (56.7 µg/ml), CEA, CA19-9 were within normal limits. Endometrial biopsy was inconclusive. Cervical cancer screen was also negative.

Ultrasound showed a bulky uterus, normal right ovary, left adnexal solid cystic mass of 14 × 17.3 cm with no visualization of left ovarian tissue. To confirm ultrasound picture, CT scan with contrast was done due to unavailability if MRI.

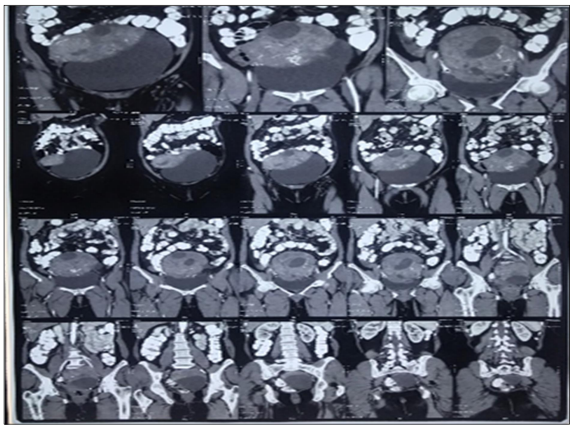

Figure 1: CT scan image of the pelvic pathology.

CT scan (Figure 1) suggested enlarged uterus (14.2 × 5.8 × 7.6 cm) with large enhancing lesion with cystic component (10.5 × 15 × 5.5 cm) in the cul-de-sac, abutting the uterus anteriorly and not separated from left ovary. The lesion appeared encasing the sigmoid colon from posterior and right lateral aspects. Loss of fat planes was noted. Irregular peritoneal thickening was noted in bilateral paracolic gutters along with fat stranding. Sub-centric lymph nodes noted in mesentery and aorto-caval locations.

With this confusion in hand, we decided to post the patient for exploratory laparotomy.

Intra operative

No ascites, no palpable lymph nodes, normal size uterus, normal bilateral tubes and ovaries. A large multiloculated mass/cyst with variegated growth with hemorrhagic spots of size 17 × 15 cm was seen arising from the left postero-lateral surface of the uterus with intact capsule. The surgery was concluded after total abdominal hysterectomy with bilateral salpingo-oopherectomy (Figure 2 and 3).

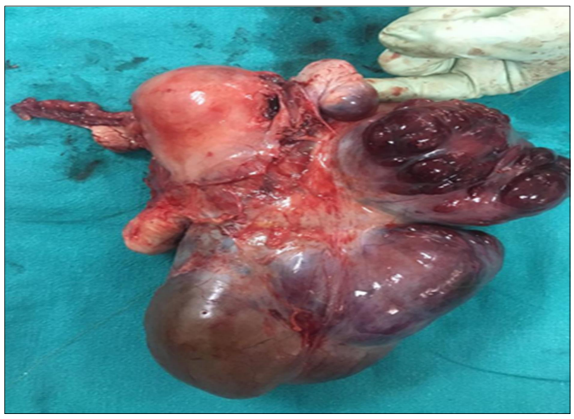

Figure 2: Anterior view of the uterus with the degenerated myoma.

Figure 3: Posterior aspect of the uterus with the degenerated myoma and both ovaries and fallopian tubes.

Post-operative period went uneventful. Patient was discharged on day 3 post surgery. Cytology of peritoneal wash was negative for malignancy. Histopathology of the left adnexal mass was suggestive of extensive cystic

degeneration of leiomyoma. Rest all the tissues sent for histopathology testing showed normal patterns.

DISCUSSION

Fibroids are benign mesenchymal tumors of the uterus. Usually, uterus provides them blood supply for their further growth. Some of these fibroids, which happen to outgrow their blood supply, undergo massive cystic degeneration possibly due to vascular insufficiency. These are the fibroids which tend to take blood supply from other tissues commonly omentum, sometimes even with common iliac and inferior mesenteric artery; gets cut off from their original supply and hence, become "parasitic".[4]

Cystic degeneration is a sequel of edema in these myomas. Its incidence is reported to be 4%.[5,6] Sometimes, this cystic degeneration is so massive that the myoma merely becomes a shell and is truly a "cystic tumor".[7] Such are the cases that creates a diagnostic conundrum.

Ultrasonography is usually the initial imaging modality for investigating female pelvis. Typically, fibroids appear as well-defined solid mass with whorled appearance. However degenerated fibroids can have complex appearances. Differentiating a large uterine myoma, probably with cystic degeneration, with an ovarian mass or malignancy, may get difficult due to limited field of view, complexity of the mass and inability to differentiate the relationship of the mass with other structures in the pelvis. Thus, in difficult situation like ours, MRI becomes the choice for higher imaging.

In spite the fact that MRI is the investigation of choice for characterization of pelvic masses, in this case patient, underwent CT Scan with contrast due to unavailability of MRI. Typically, in a CT scan, the observer may find bulky, irregular uterus or a mass with continuity with the uterus. Degeneration may appear complex with areas of fluid attenuation. Ovaries may not be visible in cases with larger pelvic masses. On contrast-enhanced scans, fibroids usually appear with low attenuation related to myometrium, occasionally they may be of the same or higher attenuation. Thus, making it slightly less accurate in diagnosing a large degenerated fibroid. However, in cases with a suspicion of ovarian malignancy, CT scan becomes very attractive for evaluating the extent of the disease.

In fibroids with cystic degeneration, such as in this case, MRI would have shown high signal intensity on T2W image and low signal intensity on T1W image.[6] MRI can differentiate ovaries along with its follicles and can also differentiate the content of the mass or type of degeneration in case of a myoma specifically. Thus, making it the preferred imaging modality for pelvic pathologies.

Thinking retrospectively, the final plan, that is, to operate upon the patient and relieve her of the symptoms, would not have changed with an MRI report. But the approach to the pathology, clinically and mentally, would have changed.

CONCLUSION

Uterine fibroids, being one of commonest benign pathologies, diagnosed and treated with precision in females can sometimes pose serious challenge to the clinicians and radiologists. This case becomes unique in the respect of its diagnostic dilemma, that a degenerated fibroid can mimic features of ovarian malignancy which can make an otherwise simple surgery into an extensive exploratory laparotomy.

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REFERENCES

1. Walker CL, Stewart EA, Uterine fibroids: the elephant in the room. Sci. 2005;308(5782):1589-92.
2. Stewart EA. Uterine fibroids. Lancet. 2001;357:293-8.
3. Ferlay J, Soerjomataram I, Ervik M, Dikshit R, Eser S, Mathers C, et al. GLOBOCAN 2012 v1. 0, Cancer incidence and mortality worldwide: IARC CancerBase No. 11. International Agency for Research on Cancer, Lyon, France. 2013. globocan. iarc. fr. 2015.
4. Odofin O, Nasir N, Satyadas T, Lower AM, Akle C. An unusual case of ectopic or "parasitic" leiomyoma excised by laparoscopic surgery. Int Surg. 2004;89(3):161-3.
5. Bansal P, Garg D, A case of massive broad ligament leiomyoma imitating an ovarian tumor. J Clin Diagn Res. 2014;8:136-7.
6. Ueda H, Togashi K, Konishi I, Kataoka ML, Koyama T, Fujiwara T, et al. Unusual appearances of uterine leiomyomas: MR imaging findings and their histopathologic backgrounds. Radiograph. 1999;19:131-5.
7. Rock JR, Jones HW. Leiomyomata Uteri and Myomectomy. In: Te Linde's Operative Gynecology. 10th edition Philadelphia: Wolters Kluwer Health/ Lippincott Williams and Wilkins; 2008:687-712.

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