

UTERINE MYOMA WITH CYSTIC DEGENERATION MIMICKING OVARIAN
NEOPLASM: A CASE REPORT

OVER TÜMÖRÜNÜ TAKLİT EDEN KİSTİK DEJENERASYONA UĞRAMIŞ MYOMA UTERİ
- OLGU SUNUMU

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ABSTRACT

Objective: Myomas are the most common uterine neoplasms. They usually have a characteristic appearance on ultrasound but the myomas that have undergone degeneration may have variable patterns. We are presenting a patient with the histologic diagnosis of uterine myoma with cystic degeneration, but preoperatively, we strongly suspected that the tumor was a primary ovarian tumor.

Case report: A 41-year-old woman, presented with a history of abdominal distention and pelvic pain. Abdominal sonogram showed a large, complex and predominantly cystic mass, approximately 20 cm × 30 cm in size, occupying the whole abdomen and suggestive of a suspicious ovarian neoplasm. Magnetic Resonance Imaging scan showed a large, thin-walled and predominantly cystic mass. The tumor was in general cystic but solid components showed contrast enhancement after contrast injection. Tumor markers were slightly elevated. Primary ovarian tumor was the most likely diagnosis, because of its size, cystic nature and thin walls. At laparotomy, we found an enlarged, complex and predominantly cystic tumor arising from the uterus that filled the entire abdominal cavity. Total hysterectomy and bilateral salpingectomy was done. Frozen section diagnosis was degenerated uterine myoma. Postoperative period was uneventful and the patient was discharged 5 days after the operation. The final histologic diagnosis was uterine myoma with cystic and myxoid degeneration, no mitosis nor necrosis was present.

Conclusion: An uterine myoma with extensive cystic degeneration may mimic an ovarian tumor on imaging modalities and should be considered in the differential diagnosis of an adnexial / pelvic mass.

Keywords: Fibroids; ovarian cancer; degenerated myoma.

ÖZET

Amaç: Uterusun en sık karşılaşılan tümörleri myomlardır. Ultrason incelemesinde myomlar karakteristik görüntüleri ile kolayca tanınabilirler. Bununla beraber dejenere myomların görüntüleme yöntemleri ile tanınmaları zor olabilir. Bu olgu sunumunda preoperatif değerlendirmede primer over tümörü düşündüğümüz fakat histolojik tanısı kistik dejenerasyona uğramış myoma uteri olan bir hastamızı sunmaktayız.

Olgu sunumu: 41 yaşındaki hasta abdominal gerginlik ve pelvik ağrı nedeniyle refere edildi. Tüm batin ultrasonografi incelemesinde büyük, kompleks, kistik komponenti baskın, 20*30 cm boyutlarında, tüm batını dolduran ve over kanseri düşündürülen bir kitle saptandı. MR incelemesi kitlenin büyük, ince cidarlı ve ön planda kistik olduğunu gösterdi. Kistin içerisinde solid komponentlerde kontrast tutulumu saptandı. Tümör göstergeçleri normal aralıkta idi. Kitlenin boyutları, kistik yapısı ve ince duvarları tanının primer over tümörü olduğunu düşündürdü. Laparotomide uterustan kaynaklanan, tüm abdominal kaviteyi dolduran, kompleks yapıda ve kistik komponenti baskın olan bir kitle saptadık. Total histerektomi ve bilateral salpingooferektomi yapıldı. Peroperatif patolojik inceleme (frozen section – dondurarak kesme) sonucu dejenere myom olarak geldi. Hastanın postoperatif takibi sorunsuz geçti ve hasta 5. günde taburcu edildi. Patoloji sonucu kistik ve miksoid dejenerasyon içeren, mitoz ve nekroz içermeyen, myoma uteri olarak geldi.

Sonuç: Kistik dejenerasyon içeren myoma uteri görüntüleme yöntemlerinde over tümörünü taklit edebilir ve adneksiyal kitle yönetiminde ayırıcı tanıda dejenere myom da düşünülmelidir.

Anahtar Kelimeler: Myoma uteri; over kanseri; dejenere myom.

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INTRODUCTION

Leiomyoma, myoma or fibroid is the most common uterine neoplasm. Ultrasonography, computed tomography and magnetic resonance imaging are helpful in the diagnosis and management of myomas. Myomas usually have a characteristic appearance on sonography; they appear as a homogeneous or heterogeneous hypoechoic uterine mass. However, degenerated myomas may have variable patterns and may mimic other pathologies including adenomyosis, hematometra, uterine sarcoma, abscess and ovarian masses. We herein report a patient with the histologic diagnosis of uterine myoma with cystic degeneration, but preoperatively, we strongly suspected that the tumor was a primary ovarian tumor.

CASE REPORT

A 41-year-old premenopausal woman, gravida 3, para 1, abortus 2, presented with a history of abdominal distention and pelvic pain. Informed consent was obtained from the patient. Her medical and family history were normal. Her surgical history included one Caesarian section. Her vital signs were all within normal limits. Abdominal examination revealed a huge abdominal mass that caused distention.

On pelvic examination, the external genitalia and uterine cervix were normal, but the fornices of the vagina were full. Abdominal sonogram revealed a large, complex and predominantly cystic mass, approximately 20 cm × 30 cm in size, occupying the whole abdomen and suggestive of a suspicious ovarian neoplasm and a small quantity of ascitic fluid was also noted. There were multiple fine septations, left ovary was seen and normal but the other ovary was not seen.

Magnetic Resonance Imaging (MRI) scan of the abdomen and pelvis showed a large, thin-walled and predominantly cystic mass probably arising from uterus (Image 1). The mass was present in all abdominal cavity and pelvis, with well-defined margins. It showed low signal intensity on T1 weighted images and high signal intensity on T2 weighted images. The tumor was in general cystic but solid components showed contrast enhancement after contrast injection. Differential diagnosis included degenerated myoma, mucous cystadenoma or cystadenocarcinoma; primary ovarian tumor was the most likely diagnosis, because of its size, cystic nature and thin walls. Complete blood count, serum electrolyte levels, tests of liver and renal function and Pap smear were normal. Serum level of CA - 125 was 107 U/ml, CA 19 - 9 was 11.19 U/ml and CA 15 - 3 was 10.2 U/ml (normal ranges: <35, <37 and <31.3U/ml, respectively).

An abdominal midline xiphopubic vertical incision was made. At laparotomy, we found some free fluid and an enlarged, complex and predominantly cystic tumor arising from the uterus that filled the entire abdominal cavity and compressed the intestines (Image 2). The upper pole of the tumor was extended up to the level of umbilicus. The mass caused the torsion of the uterus and adnexes; the right ovary was on the left side of the abdomen and the left ovary on the right side. There was another uterine solid mass, a firm pale and pink solid

mass, probably a myoma, arising from anterior wall of the uterus, with the dimensions of 11 cm × 10 cm. Both ovaries were seen and were normal. Total hysterectomy and bilateral salpingectomy was done. Frozen section diagnosis of the giant mass and the second solid mass were both degenerated uterine myoma, so no additional surgical procedure was done. Postoperative period was uneventful and the patient was discharged 5 days after the operation. The final histologic diagnosis was uterine myoma with cystic and myxoid degeneration, no mitosis nor necrosis was present.

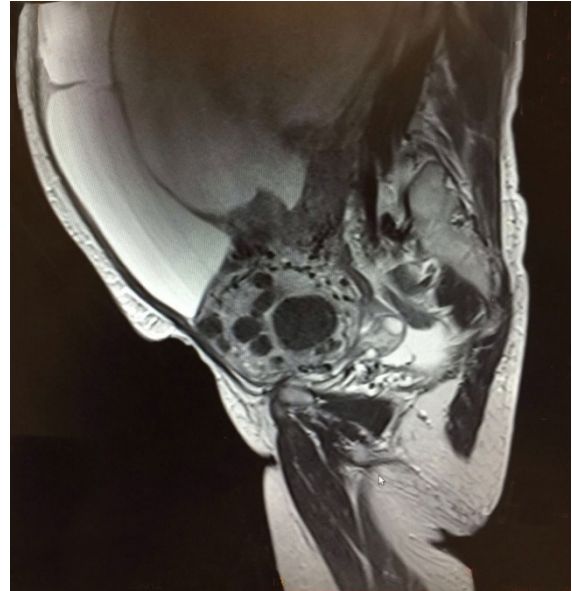


Image 1: Sagittal MR image shows multi-cystic uterine tumor, a large mass occupying most of the abdominopelvic cavity with some areas of cystic degeneration.



Image 2: Operative field. Large pedunculated uterine mass of approximately 20 cm × 30 cm in size and a myoma with the dimensions of 11 cm × 10 cm on the anterior wall of the uterus.

DISCUSSION

Leiomyomas, myomas or fibroids are the most common uterin neoplasm. Their size may vary from microscopical to giant tumors (weighing 25 lb – 11.3 kg or more) (1). As leiomyomas enlarge, they can outgrow their blood supply, resulting in various types of degeneration, such as hyaline, cystic, myxoid or red degeneration and dystrophic calcification (2). Degeneration of leiomyomas is a common complication occurring in approximately two thirds of all surgical specimens (3). Hyalinization being the most common type of degeneration, occurring in up to 60% of cases, cystic degeneration, observed in about 4% of leiomyomas, may be considered extreme sequelae of edema (4).

Typical appearances of leiomyomas are easily recognized on imaging modalities. Ultrasound is usually the initial screening tool for myoma (5), because it is cheap, cost-effective and non-invasive. On ultrasound, the uterus may be focally or globally enlarged, the myoma appears as a solid mass slightly hypoechoic than the myometrium. Although they do not have a true capsule, they are usually well circumscribed and rounded. If calcific degeneration is present, some acoustic shadowing are seen on ultrasound. However, other degenerating myomas can have variable patterns and may pose diagnostic challenges and the atypical appearances that follow degenerative changes can cause misdiagnosis. They can be falsely interpreted as adenomyosis, hematometra, uterine sarcoma, abcess and ovarian masses.

In our case, the predominantly cystic nature of the lesion, the fact that one of the ovaries is not seen led to the diagnosis of a mass origination from the ovary; so an ovarian tumor. Additionally, the mass's large size and multi-locularity are characteristics of a cystadenoma or cystadenocarcinoma. But the final histologic diagnosis of the lesion was degenerated uterine myoma. This case showed how important is to visualize the ovaries on ultrasound and MRI. At laparotomy, we saw that our case's ovaries were both normal but were displaced due to the torsion of the uterus and adnexes, so they were not well visualized on sonography and MRI.

Neither CT nor MRI are the primary modality for diagnosing and evaluating uterine myomas but they both can be used. MR imaging is currently considered to be more accurate imaging technique for the detection and localization of leiomyomas. Additionally an enlarged uterus can not be always visualized with ultrasound, so MRI may be mandatory in some cases. Nondegenerated myomas have a typical appearance on MRI; they are well-circumscribed masses with decreased signal intensity compared to myometrium on T2-weighted images. However, degenerated myomas may have variable appearances. Myomas with cystic degeneration show high signal intensity on T2-weighted images, and the cystic areas do not enhance. Myomas with myxoid degeneration show low signal intensity on T1-weighted images, very high signal intensity on T2-weighted images, and enhance minimally or do not enhance on contrast-enhanced images. Our case's MRI

scan revealed a predominantly cystic mass, arising from the uterus and with high signal intensity on T2-weighted images. However, the tumor was thought to be of ovarian origin because of its cystic nature, thin walls and big size.

In English literature there are other reported cases of myoma mimicking ovarian tumor (6-8). Low and Chong reported a very similar case to our's: their patient had a pedunculated and subserosal uterine myoma with cystic degeneration that mimicked a mucinous cystadenocarcinoma (8). The sonogram showed a large, complex and predominantly cystic mass, with the dimensions of 17*17*9 cm, located above the uterus. The lesion had internal septations and neither ultrasound nor CT showed normal ovaries. That patient's tumor markers were within normal limits. At laparotomy, they found a 20-cm tumor arising from fundus uteri and normal ovaries. The final pathologic diagnosis was pedunculated uterine leiomyoma with marked cystic degeneration; a very similar case to ours.

CONCLUSION

An uterine myoma with extensive cystic degeneration may mimic an ovarian tumor on imaging modalities and should be considered in the differential diagnosis of an adnexial / pelvic mass.

Conflict of interest: None

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