

Uterine lipoma

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ABSTRACT

Pure lipoma of the uterus is a rare entity and few cases have been reported. They usually develop in postmenopausal women. Clinical symptoms and physical signs are similar to those found in leiomyomas. The histogenesis of these lesions is still unclear. The diagnosis is easily made at the time of surgery or at autopsy, but before this, they may lead to many problems in the differential diagnosis with another uterine tumors. Recent papers suggest the possibility of a preoperative diagnosis made by computed tomography and magnetic resonance imaging. We report a case of a 67-year-old postmenopausal women presented with pelvic pressure and urinary symptoms. Pathological evaluation revealed pure intramural lipoma of the uterus illustrating characteristic morphological and histological findings with no evidence of sarcomata's component.

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Lipoma of the uterus is extremely rare neoplasm with only few cases in the literature. It is usually develop in postmenopausal women. Although the diagnosis can be suggested on radiological examinations, it is only confirmed by pathological examination that is also important to rule out the possibility of liposarcoma. We report a large uterine lipoma in Saudi patient that shows no evidence of malignancy. From this case, it is important to include the uterine lipoma in the differential diagnosis of large uterine mass in elderly people.

Case Report. A 67-year-old gravida 5, para 5, postmenopausal women presented to the gynecology clinic complaining of pelvic pressure and urinary frequency over 3-years period. Her previous deliveries were spontaneous vaginal deliveries with no complication and she used to have normal regular period. She has been menopause for the last 7 years and she was not taking any hormonal replacement therapy. She has

no other complain and no major medical illness and she had no previous surgery. On physical examination she was not in pain, her vital sign were stable, weight was 55 kg, height was 140 cm, chest, heart and breast findings were normal. Abdominal examination showed large midline pelviabdominal mass up to her umbilicus, not tender and smooth in consistency. Pelvic examination revealed normal vulva, vagina and cervix. Bimanual examination revealed that the mass most likely arises from the uterus consistent with uterine fibroid. Magnetic resonance imaging (MRI) study revealed a large uterine mass composed of fat, which matched the subcutaneous and intraabdominal fat (**Figure 1**). The mass was confined to uterus without extrauterine extension. Based on the above finding, the patient was elected to undergo surgical management and she was admitted and prepared for laparotomy. A midline incision was made and abdomen was entered in layers. Finding diffuse enlargement of the uterus that is soft in consistency (**Figure 2**). Both ovaries were normal. Hysterectomy and bilateral

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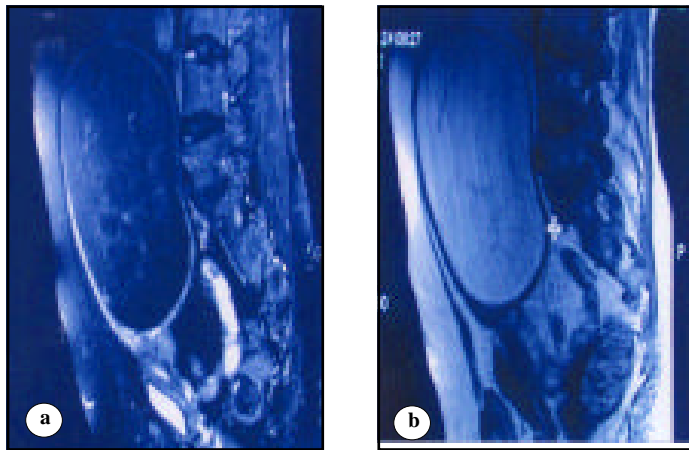


Figure 1 - Magnetic resonance image showing **a)** Left: Sagittal T1 spin echo (SE) 13 x 13 x 9 cm. Uterine mass with signal intensity matching fat. **b)** Right: Sagittal T1 SE with fat suppression and post Gadolinium administration showing complete homogenous suppression of the signal of the uterine mass and lack of enhancement. The appearance is highly suggestive of a lipoma.



Figure 2 - A midline incision of the abdomen reveals enlargement of the uterus that is soft in consistency.

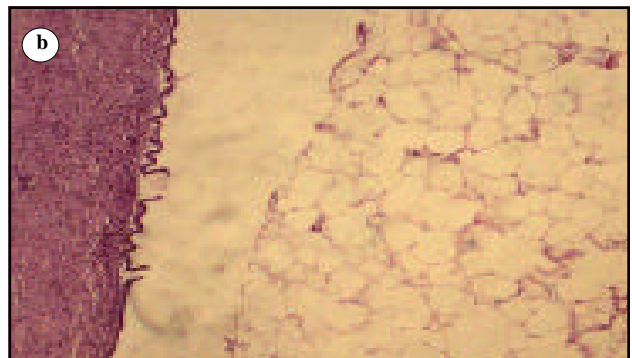
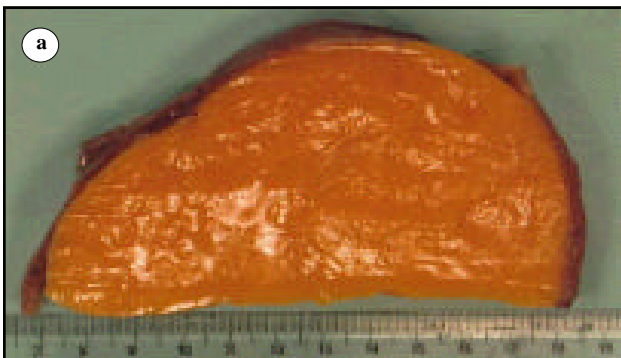


Figure 3 - Photograph showing **a)** the gross picture of slice of the tumor reveals a thin compressed uterine wall and a large mass filling the uterine cavity measuring with yellowish smooth cut surface. **b)** Microscopic picture reveal lobules of mature adipose tissue.

salpingoophorectomy was performed with no complication and postoperative period was uneventful

Morphological findings. The hysterectomy specimen revealed a large mass filling the uterine cavity measuring 13 x 10 x 6 cm with yellowish smooth cut surface (**Figure 3a**). No evidence hemorrhage or necrosis. There were no other masses and both ovaries and tubes are unremarkable. Sections from the mass revealed classic picture of pure lipomatous tumor composed of lobules of mature adipose tissue (**Figure 3b**). The tumor is well delineated with no invasion of the surrounding myometrium. There was no smooth muscle component. No lipoblast could be identified.

DISCUSSION. Pure lipomas of the uterus are extremely rare with only few cases in the literature.¹⁻⁹ It can be highly suggested preoperatively based on typical characteristics on ultrasound and computed tomography (CT).⁸ The final pathological examination is required to confirm the diagnosis of lipoma. Most uterine lipomas occur in middle-aged or elderly women. Clinical symptoms and physical signs are similar to those found in leiomyomas. When a large uterine tumor is found in a postmenopausal woman, the possibility of malignancy should be considered.⁸ Now, however, advanced modern imaging systems can provide more precise diagnoses than before. In our case lipomatous tumor was highly suggested preoperatively based on typical MRI characteristics. A homogeneous hyper-echoic mass confined to the uterus on ultrasound initiated the suspicion of the tumor. It is believe that lipomatous tumors of the uterus can be suggested with a high degree of certainty by ultrasonography if a homogeneously hyperechoic avascular mass can be clearly identified to be of uterine origin.^{6,8} The uterine fatty tumor of the uterus have aroused interest as a consequence of occasional diagnostic confusion with sarcomas and the continuing unresolved dispute as to their histogenesis.²⁻⁵ A uterine leiomyoma that contains a significant amount of fat is called a lipoleiomyoma and one that has a vascular component as well is diagnosed as angiolipoleiomyoma. Fatty change is commonly seen in some variants of lipoma such as epithelioid leiomyoma and intravascular leiomyomatosis. From the histopathological findings and a review of the relevant literature, it was considered that "lipoleiomyoma" is probably

arises from 'lipomatous' metaplasia of a pre-existing leiomyoma and angiolipoleiomyoma is most likely of a choristomatous nature.⁷ Pounder suggested that the viewpoint that these tumours are hamartomas/choristomas is not acceptable and most probably represent tumor metaplasia within a leiomyoma.² Although this is possible explanation to the cases that contain leiomyomatous components as well as fatty components, pure lipomas are most likely a primary neoplasm. Up to our knowledge this represent the first reported case of uterine lipoma in Saudi patient. From this case it is important to include the uterine lipoma in the differential diagnosis of uterine mass in postmenopausal women. Although the diagnosis can be suggested on the CT and MRI, it is only confirmed by pathological examination that is also important to rule out the possibility of liposarcoma, which has been reported as a rare primary tumor in the uterus.¹⁰

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