A Giant Parasitic Leiomyoma with Blood Supply from Omental Branches: A Case Report

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ABSTRACT

A female patient with the age of 33 having gravida: 3, parity: 2 and D&C: 1, applied to our clinics by pelvic mass that she had. It had been comprehended from the anamnesis of the patient that she applied to a gynecologist because of ongoing inguinal pain and abdominal distension for about 4 months. In the physical examination, a mass that can be palpated in suprapubic region was observed. In transvaginal ultrasonographic examination, a giant leiomyom was determined having the dimensions of 9.5cm x 8.5 cm that was located at fundal uterus with subserous component and enlarged the uterus. Pfannenstiel incision was performed. In intraoperative examination, a fundal subserous located parasitic leiomyoma with around 10 cm diameter, supplied by a vascular structure about 30 cm in length from omentum was diagnosed.It was diagnosed that omentum adhered to leiomyoma partially. Firstly, omentum with its vascular structure was excised. Partial omentectomy was performed. Then, leiomyoma was excised by performing dissection and operation was ended up. Parasitic myomas are indicated as rarely seen myomas in literature. It is crucial to maintain specific diagnosis, careful imaging and serious planning in preoperative preparations.Although parasitic leiomyomas are rarely seen cases, because of abnormal vascularization and adhesion to other organs, one should be careful in preoperative examinations and sufficient blood supply should be maintained in case of bleeding. Additionally, surgical information has to be had for surgical exploration and pelvic anatomy.

Keywords: Parasitic myoma, Pelvic pain, Omentum
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Introduction

Uterus is the muscular organ having thick wall and consisting of smooth muscle cells. Because of monoclonal proliferation of these smooth muscle cells, benign lesions are developed which are called leiomyoma. Leiomyomas are one of the benign neoplasms those are mostly seen in the uterus.[1,2] Leiomyomas are classified into three groups due to their anatomical locations in the uterus, which are called; subserous, intramural and submucous.

Although the reason why leiomyomas develop is not known decisively in pathogenesis, it is thought that the hormonal mechanisms play critical roles in development of leiomyoma. That's why, leiomyomas could be seen in 20-25% of women who are in their reproductive age.[3,4]

On the other hand, parasitic leiomyomas are smooth muscle cell tumors that are supplied by the artery from neighboring organ or omentum and developed when this artery filled with blood. In general, they are rarely seen and beside their classical symptoms (inguinal pain, vaginal bleeding, etc.), they can also show some symptoms related to neighboring organs.

In this case report, we will look through current literature information about parasitic leiomyoma supplied blood from omentum and discuss the treatment approach.

Case Report

A female patient with the age of 33 having gravida: 3, parity: 2 and D&C: 1, applied to our clinics by referring from outside center because of pelvic mass that she had. It had been comprehended from the anamnesis of the patient that she applied to a gynecologist because of ongoing inguinal pain and abdominal distension for about 4 months. When the background of the patient was asked, it was seen that there was not any operations she had before as well as not having any medical disease.

In the physical examination, a mass that can be palpated in suprapubic region was observed. In transvaginal ultrasonographic examination, a giant leiomyom was determined having the dimensions of 9.5cm x 8.5 cm that was located at fundal uterus with subserous component and enlarged the uterus.

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Bilateral ovaries were observed as normal. In color doppler ultrasonography there was a intense vascularization in leiomyoma. Myomectomy together with laparotomy was planned for the patient with uterine myoma pre-diagnosis.

Pfannenstiel incision was performed. In intraoperative examination, a fundal subserous located parasitic leiomyoma with around 10 cm diameter, supplied by a vascular structure about 30 cm in length from omentum was diagnosed (Figure 1).



Figure 1: Parasitic leiomyoma with blood supply from omental branches

It was diagnosed that omentum adhered to leiomyoma partially. Firstly, omentum with its vascular structure was excised. Partial omentectomy was performed. Then, leiomyoma was excised by performing dissection and operation was ended up. It was reported as a parasitic leiomyoma supplied by omental branches after pathologic examination (Figure 2).

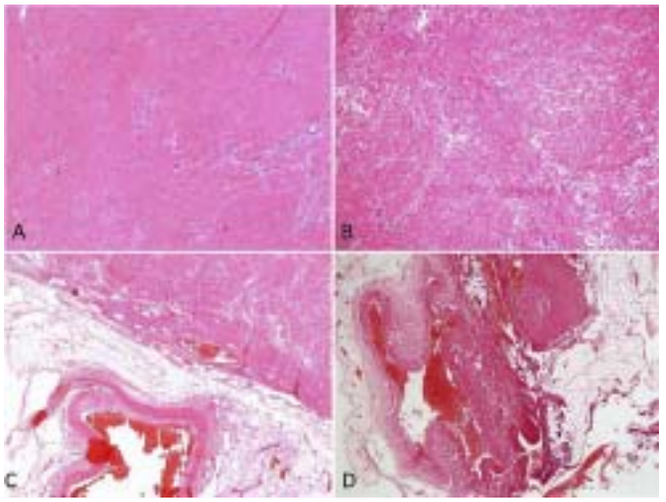


Figure 2: (A, B) Round mass lesion is composed of spindle shaped cells with bland nuclei and eosinophilic cytoplasm arranged in whorls and fascicles (H&E, Both x100). (C) Sections demonstrate relationship between large blood vessel and the leiomyoma (H&E, x100). (D) Surgical margin of the vessel is clear (H&E, x40).

Since there was no post-operative complication, the patient was discharged from hospital at the second day.

Conclusion

Leiomyomas that consist of benign smooth muscle tumors, are seen in 20-25% of women in their reproductive age.[4] Parasitic myomas are indicated as rarely seen myomas in literature.[5] Recently, with having developed laparoscopic and/or robotic myomectomy techniques and increased morcelator use, myomas are usually taken out of lower abdomen by being separated into small fragments. Thus, small leiomyoma fragments left in lower abdomen, can cling on omentum or neighboring organs by separating into abdominal cavity. Because of that, with the help of developed angiogenesis in there, leiomyoma fragments can be developed into parasitic myoma after being fed and grow. That's why, nowadays, an increase in the number of observed parasitic leiomyomas can be determined.[6,7]

In some literature, it has been demonstrated that leiomyomas which have lost their connection with uterus spontaneously, can generate parasitic myomas by clinging to abdominal organs.[8] Beside this, in some other literature, it has been explained that some myomas can cause the generation of parasitic myomas by enabling to become bloody from other organs after losing their blood supply from uterus after GnRH analogs and uterine arter embolization.[5]

In our case, at the background of our patient, there was no surgical operation as well as drug use. According to intraoperative observation, it was determined that leiomyoma was originated from fundal part of the uterus but had a blood supply from the omental branches. When the literature was looked through, the parasitic leimyoma in our case, was evaluated as it had been occured spontaneously.

Although leiomyomas are commonly diagnosed by ultrasonographic examinations, the locations of parasitic leiomyomas can cause difficulties in diagnosis.[9] Therefore, additional radiologic examinations can be needed. In our case, transvaginal ultrasonography and color doppler ultrasonography were sufficient.

Some parasitic leiomyoma cases can generate some symtomps related to gastrointestinal tract, bladder and ureter by causing obstruction to these organs and systems.[10] That is why, it is crucial to maintain specific diagnosis, careful imaging and serious planning in preoperative preparations. In our case, because of the position of leiomyoma, there was only inguinal pain and no other symptoms related to other organs. Also, because of abnormal angiogenesis in parasitic leiomyoma, sufficient blood supply should be planned during preoperative preparations.

In conclusion as a general evaluation, although parasitic leiomyomas are rarely seen cases, because of abnormal vascularization and adhesion to other organs, one should be careful in preoperative examinations and sufficient blood supply should be maintained in case of bleeding. Additionally, surgi-

cal information has to be had for surgical exploration and pelvic anatomy.

Omentumdan Beslenen Dev Parazitik Leiomyom: Olgu Sunumu

ÖZET

Gravida: 3, Parite: 2, D&C: 1 olan 33 yaşındaki bayan hasta, pelvik kitle nedeniyle, dış merkezden refere edilerek kliniğimize başvurmuştur. Hastanın anamnezinden 4 aydır süren kasık ağrısı ve karında şişlik hissi nedeniyle jinekoloğa başvurduğu anlaşılmıştır. Fizik muayenesinde suprapubik bölgede palpe edilebilen kitle izlendi. Transvaginal ultrasonografik incelemede ise, uterusu diffüz büyüten fundal subseröz yerleşimli 9.5 cm x 8.5 cm ebatlarında leiomyom izlendi. Pfannensteil insizyonu ile batına girildi. İntraoperatif değerlendirmede fundal yaklaşık 10 cm, ometumdan kaynak alan yaklaşık 30 cm uzunluğunda vasküler yapı ile beslenen subseröz yerleşimli parazitik miyom izlendi. Omentum parsiyel olarak miyom nüvesine adeze olarak değerlendirildi. Öncelikle omentum vasküler yapısı ile birlikte eksize edildi. Parsiyel omentektomi uygulandı. Ardından miyom nüvesi usulüne uygun disseke edilerek eksize edildi. Ardından operasyon sonlandırıldı. Parazitik miyomlar ise literatürde nadir görülen miyomlar olarak bahsedilmektedir. Sonuç olarak genel bir değerlendirme yaptığımızda, parazitik leiomyomlar nadir görülen olgular olmasına karşın, anormal vaskülarizasyon, diğer organlara olan adezyonları sebebiyle preopratif değerlendirmede dikkatli olunmalı, yine preoperatif dönemde olası kanama durumlarına karşın yeteri kadar kan desteği hazırlanmalıdır. Ayrıca yeterli bir cerrahi eksplorasyon ve pelvik anatomiye hakim cerrahi bilgi gereklidir.

Anahtar Kelimeler: Parazitik miyom, Pelvik ağrı, Omentum

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