

Parasitic leiomyoma

A rare cause of inguinal mass in females

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ABSTRACT

يعد الورم العضلي الأملس الرحمي من الأورام الشائعة التي تُصاب بها المرأة في فترة الإنجاب. يمكن أن يُصنف الورم العضلي الأملس حسب موقعه إما داخل جدار الرحم أو خارجه، ويحدث الورم العضلي الأملس خارج الرحم من دون ظهور أي من الأعراض أو التغيرات في هذا العضو. لقد قامت الدراسات السابقة بوصف أنماط نمو المرض مثل نموه خلف الصفاق أو نموه الفطري. نستعرض في هذه الدراسة حالة مرضية لمريضة تبلغ من العمر 28 عاماً وكانت تعاني من كتلة في المنطقة الأربية، ولقد تم تشخيص حالتها أخيراً على أنها مُصابة بالورم العضلي الأملس الطفيلي. خضعت المريضة لعملية جراحية تم خلالها استئصال الكتلة وإعادة ترميم الجدار الخلفي للقناة الأربية، وقد تبين أنه ورم عضلي أملس طفيلي يمتد خارج الجدار الخلفي للقناة الأربية حتى منطقة ما تحت الجلد كما أنه يشبه الفتق الأربي المباشر. يعد الورم العضلي الأملس الطفيلي من العوامل النادرة التي تتسبب في تورم القناة الأربية، ويمكن اعتبار الاستئصال الجراحي العلاج الأمثل لهذه الحالات مع ضرورة التأكد من وجود الرحم سليماً في تجويف الحوض.

Leiomyoma of the uterus is a common tumor during the reproductive age of females. It is classified as intrauterine and extrauterine. Extrauterine leiomyomas may occur without a concurrent uterine pathology. Different growth patterns have been described, like retroperitoneal and parasitic growth. We report a case of a 28-year-old female who was found to have inguinal mass, and it was finally diagnosed as parasitic leiomyoma. The mass was coming through the posterior inguinal wall into the subcutaneous region, like a direct inguinal hernia. She underwent excision of the mass, and repair of posterior inguinal wall. Parasitic leiomyoma can be a rare cause of inguinal swelling. When diagnosed, surgical excision is the treatment of choice.

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Leiomyoma is a benign tumor that originates mostly from the smooth muscle cells of the uterus. However, it is not the only possible origin for this lesion. The incidence of leiomyoma is higher in women during the reproductive age with a rate of 20-30%.^{1,2} Different growth patterns have been reported including dissemination, benign metastasis, intravenous leiomyomatosis, retroperitoneal, and parasitic growth.¹ The term parasitic has been used to describe a lesion that become adherent to the surrounding structures, develop an auxiliary blood supply, and lose attachment to the origin.³ Our aim in this report is to add to the literature the rare possibility of finding parasitic leiomyoma in the inguinal region of females.

Case Report. A 28-year-old single female, not known to have previous medical illness, presented to the Surgical Clinic at King Abdullah University Hospital, Irbid, Jordan, complaining of left inguinal mass, first felt 10 years ago. The mass was enlarging in size over the first few years, then it became static. It used to cause moderate perimenstrual pain. Examination revealed a left inguinal mass that was oval in shape, firm, irreducible, measuring approximately 6x5 cm. Carnett's sign and cough impulse tests were both negative. Physical examination was suggestive of inguinal endometriosis

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as the pain was related to the menstrual cycle. There was no palpable inguinal lymph node, or abdominal organomegaly. Computerized tomographic (CT) scan showed 5x5.5x6 cm cystic lesion with thick enhancing wall, herniating through the posterior inguinal wall, and the external inguinal ring to the subcutaneous area (Figure 1). The uterus was in the anatomical pelvic position. No other pelvic masses were identified. The patient was thereafter admitted to the hospital for exploration under general anesthesia. At operation, the mass was herniating through the posterior inguinal wall medial to the inferior epigastric vessels, and settled in the subcutaneous region (like a direct inguinal hernia), and no sac was identified. A stalk-like part of the lesion was present, and found related to the left ovary that shared the same blood supply (Figure 2). The pedicle was divided and the mass was excised, then an open anterior non-prosthetic repair of the posterior inguinal wall was carried out using polypropylene suture. During the surgery, a gynecologist who attended the operation has had a high suspicion that it was an ectopic separate uterus.

The patient was followed up in the outpatient clinic at one week, one month, and 3 months with no evidence of recurrence, or any other complication. In



Figure 1 - A computed tomography scan showing the mass (arrow).



Figure 2 - The excised mass with the clot inside (arrow).

histopathology, sectioning of the mass lesion showed white whorled cut surfaces with a central area of hemorrhage, it was not connected by a cavity to the stalk-like part. There was no coagulative necrosis, no atypia, and no increase in mitotic activity. The whole picture was suggestive of parasitic apoplectic leiomyoma. It was not considered an ectopic uterus due to the absence of endometrium.

Discussion. In the medical literature, inguinal hernia has been reported to contain a variety of pelvic and abdominal organs including bowel, bladder, ovaries, Fallopian tubes, endometriosis, rudimentary uterine horn, and uterus.⁴ We add in this report a rare finding that can be encountered in females undergoing surgery for inguinal mass or hernia. The most popular theory to explain parasitic fibroid generation is the detachment of subserosal leiomyoma.⁵ The most common source of blood supply for this pathology is the omentum. Extrauterine tumors can also arise from smooth muscle in the vulva, ovaries, urethra, or urinary bladder. Although uterine fibroid is considered the most common risk factor for parasitic leiomyoma, other etiologies should be considered. Approximately 60% of cases reviewed by Poliquin⁶ from 1941 until 2007 have had no concurrent uterine leiomyoma. In addition, Kang et al⁷ has the first documented case of multiple isolated large leiomyomas in retroperitoneum without uterine myomas indicating that lesions may be of primary multifocal origin, rather than being metastatic or parasitic.

Different authors⁸⁻¹⁰ have suggested a direct association between the incidence of parasitic leiomyoma and the increasing rates of laparoscopically performed procedures, which supports the idea that extrauterine leiomyoma can be iatrogenically generated. There is a growing evidence that the risk is higher in laparoscopic than open pelvic operations. This can be attributed to the better awareness on detached pieces of uterus, and the ability to wash out the field more adequately in case of open surgery.⁸⁻¹⁰ Our case is unique as she did not have a history of any previous abdominal procedure to blame as a possible predisposing cause.

Inguinal hernias that contain uterine tissues, ovaries, or Fallopian tubes have been frequently reported in the literature. A sac containing endometriosis has also been described.⁴ The presence of a herniated uterus in the inguinal region is called hysterocele. In our case, although the myometrium was present with cavity and necrosis inside, the absence of endometrium was the reason to exclude a herniated uterus.

In conclusion, parasitic leiomyoma is a very rare cause of inguinal mass in females. Surgical excision is the suitable treatment after making sure by proper investigations that the uterus and ovaries are normal.

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