CASE REPORT

Retroperitoneum parasitic leiomyoma: Dilemmatic diagnostic

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ABSTRACT

Objectives: To describe a retroperitoneum parasitic leiomyoma case: a dilemma in diagnosis and operation finding.
Case Report: A 38 year-old woman with 3 children visited Ulin Hospital, Banjarmasin, Indonesia, with complaint of mass in lower abdomen and about 4 months before, she underwent biopsy by laparotomy which revealed leiomyoma. Parasitic leiomyoma is a rare type of leiomyoma with predilection area in broad ligament, pelvic peritoneum, pouch of douglas, and omentum. During operation, the tumor was detached from the uterus and located retroperitoneally as high as L4–S1. It had been confirmed intraoperatively and proven histopathologically as a leiomyoma.
Conclusion: Retroperitoneal parasitic leiomyoma may cause a dilemma in the diagnosis. Multidiscipline examination and approaches may increase the quality of management.

Keywords: Retroperitoneum parasitic leiomyoma; laparotomy; multidisciplinary approach; tumor; cancer; maternal health.

ABSTRAK

Tujuan: Menyajikan laporan kasus tentang Retroperitoneum Parasitic Leiomyoma: dilema dalam diagnosis dan temuan saat operasi.
Laporan Kasus: Seorang wanita berusia 38 tahun dengan 3 anak datang ke poli RSUD Ulin, Banjarmasin, Indonesia, dengan keluhan benjolan di perut bawah dan riwayat laparatomi biopsi 4 bulan sebelumnya dengan hasil PA leiomyoma. Parasitic leiomyoma, merupakan jenis leiomyoma yang jarang, biasanya terdapat pada ligamentum latum, peritoneum pelvis, cavum douglas dan omentum. Selama operasi didapatkan massa tumor tidak dari uterus namun terletak retroperitoneal setinggi vertebra L4-S1 dengan hasil histopatologi leiomyoma.
Simpulan: Retroperitoneal parasitic leiomyoma dapat menyebabkan dilema dalam membuktikan diagnosis. Pemeriksaan dan pendekatan multidisiplin yang baik akan meningkatkan kualitas manajemen.

Kata kunci: Retroperitoneum parasitic leiomyoma; laparotomi; pendekatan multidisiplliner; tumor; kanker; kesehatan ibu.

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INTRODUCTION

Uterine leiomyomas (uterine fibroid) is one of the most common tumor found in women of reproductive age. The prevalance of leiomyomas is up to 20-30% among women older that 35 years.[1,2] Another study have discovered increases of myoma prevalence in older age, almost 70% among >40 years old, with most incidences in African ethnic at >80% of all population.[3,4] Incidences among Asians and Caucasians are comparable, but some studies have shown that the incidences among Asians are lower. The African American had the higher prevalance, up to 3-fold more than other ethnics.[5,6]

Leiomyoma may develop both intrauterine and extra-uterine. They are known to originate from wherever smooth muscle cells exist. Extrauterine events are rare and may occur in other anatomical locations.[1] Due to the rarity, the development patterns are reported in several works of literature, such as dissemination, benign metastasis, intravenous leiomyoma, retroperito-neal, and parasitic growth. They generally adhere to surrounding tissues, attain additional vascularization from surrounding organs and detach from their initial site as a parasite. Parasitic leiomyomas can also be found on patients with a history of hysterectomy or myomectomy per laparoscopy, especially with morcellator usage for the extraction of myoma tissues.[7,8] The rare condition may present with uncommon clinical symptoms and are prone to preoperative misdiagnosis, even with cutting-edge radiology modalities. We reported a rare case of retroperitoneal parasitic leiomyoma.

CASE REPORT

A 38 years old female with a history of bearing 3 children came to Obstetric Gyneologic Clinic of Ulin Regional General Hospital, Banjarmasin, Indonesia, presenting a swelling in her lower abdomen. She had a history of biopsy laparotomy 4 months earlier. There was no history of respiratory, digestive, nor urinary symptoms. She had a spontaneous vaginal delivery and two times cesarean section with no history of abortus. Menarche was at 13 years old. The menstrual cycle was orderly every 30 days, with a duration of 4-7 days, with 2-3 times sanitary change daily, no dysmenorrhea history, and no hormonal therapy history. The patient had a tumor biopsy laparotomy 4 months previously with a pathological anatomical examination, revealing that it was a leiomyoma. Physical examinations revealed a prominent, relaxed abdomen. The uterine fundus was unpalpable. A dense, non-bumpy fixated mass of 15x10 cm was palpated in the suprapubic region. The examination did not elicit any pain, and no enlargement of inguinal lymph node or any other abdominal organs were found. The in-speculum examination showed a normal vaginal wall, but an anteriorly pushed cervix. Vaginal toucher revealed an anteriorly pushed portion, enclosing the external uterine orifice. Corpus uterine was unable to be examined, while both the left and right parametrium adnexa were within normal range. The cavum Douglass was protruding with a dense, fixated, non-bumpy tumor mass of 15 x 10 cm. No pain was elicited during the examination. Laboratory values were within normal range. Ultrasound gave an impression of a mass in the cavum Douglass supporting a subserous uterine myoma on the posterior wall of the uterus size of 15 x 10 cm. The CT scan revealed a dense ovarian tumor with the size 9.97 x 14.79 x 13.47 cm in the pelvic cave, extending to the abdominal cave.

Considering both clinical examination and ancillary results, it was concluded that the diagnosis of the patient was a subserous uterine leiomyoma on the posterior uterine wall with a differential diagnosis of dense ovarian tumor. A total hysterectomy–bilateral salphyngo-ophorectomy was then planned. Intra-operative findings revealed that the uterus and both adnexa were normal, but adhesion was present between the abdominal wall and the tumor mass; thus adhesiolysis was conducted. A non-bumpy retroperito-neal mass of 15 x 10 x 13 cm was found adhered on the L4–S1 vertebrae, thus a resection was done, and the sample was sent to the anatomic-pathologist.

Pathological findings

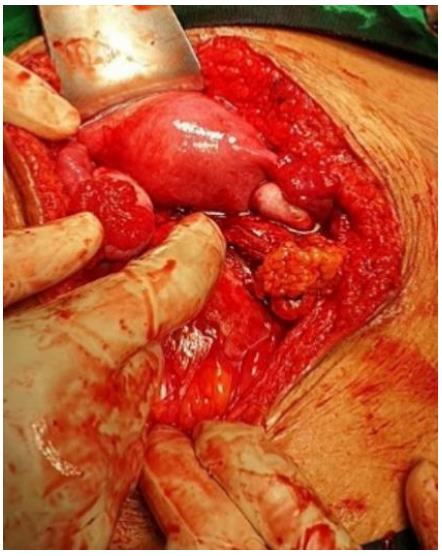

Figure 1. Findings during the operation

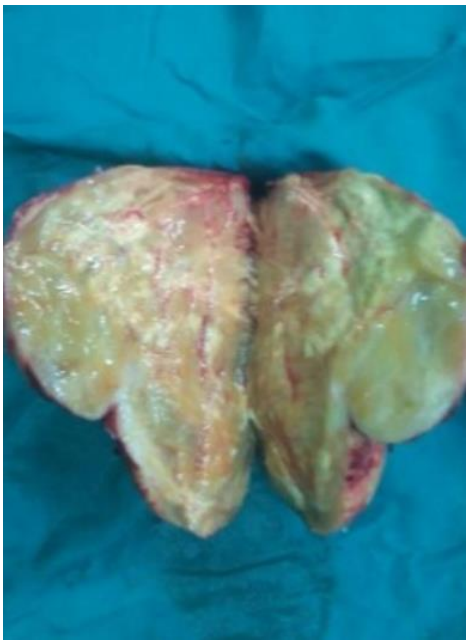

Figure 2. Macroscopic image

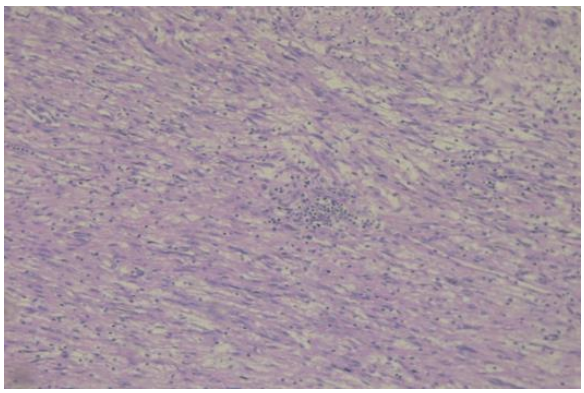

Figure 3. Microscopic image showing cigar-like smooth muscle cells. No malignant signs.

DISCUSSION

Leiomyoma (uterine fibroid) is the most often benign tumor in female genital organs. A diagnosis is usually able to be confirmed early, but certain circumstances involving pathological changes may increase the difficulty in diagnosing and treating the disease.[9] The growth of subserous leiomyoma is vascularized by blood vessels of the uterus and from surrounding adhered organs' vessels. Like the omentum, the iliac and inferior mesenteric artery will weaken the connection with the uterus. The condition is known as the parasitic leiomyoma. Parasitic leiomyoma is a rare type of leiomyoma, generally occurring on the pelvis and the most dependent parts of the abdominal cavity. Several cases have reported parasitic leiomyomas that occurred on pararectal fossa, omentum, appendix, abdominal wall trocar site, paravesical space, gastric serosa, intestinal serosa, rectus muscle, lumbar region, ovaries, and in the bowel.[10,11] The macroscopic and microscopic findings of the parasitic leiomyoma are very similar to the uterine leiomyoma. Sometimes very peculiar findings such as a necrotizing tumor cell nucleus and radiologically also resemble that of a malignant tumor.[7,11]

Ultrasound and MRI (Magnetic Resonance Imaging) are both the best modalities to diagnose parasitic leiomyoma. The initial investigation, just as in cases of a patient presenting with a pelvic mass, should therefore include a pelvic ultrasound. MRI may further help in distinguishing benign leiomyomas from other solid pelvic and abdominal tumors.[12,13] When the parasitic leiomyoma detached from the uterus, it may result in a misdiagnosis into an adnexal tumor, such as ovarian tumor. In this reported case, the tumor detached from the uterus and was located retroperitoneally as high as L4–S1. It had been confirmed intraoperatively and was proven histopathologically as a leiomyoma.

The retroperitoneum parasitic leiomyoma is a very rare occurrence but should be considered as a differential diagnosis of a female genitalia tumor. Sometimes it grows from the supply of new blood vessels from surrounding organs, involving pathological changes or commonly known as degeneration. The degeneration type most often seen is hyaline, cystic, mucoid and red.[14,15]

CONCLUSIONS

Retroperitoneal parasitic leiomyoma is a very rare occurrence, often arising dilemma in making a diagnosis. It should be considered as a differential diagnosis for internal female genital tumor. MRI and multidisciplinary approach, hand-to-hand with digestive surgery, will increase the quality of managing this very rare condition.

REFERENCES

1. Sujatha MS, Mamatha S, Poornima M, et al. Parasitic leiomyoma peritoneum. A rare case. Open Journal of Obstetrics and Gynecology. 2014;04 (14):864. doi: 10.4236/ojog.2014.414121

2. de la Cruz MS, Buchanan EM. Uterine fibroids: Diagnosis and treatment. Am Fam Physician. 2017;95(2):100-7. PMID: 28084714
3. Wechter ME, Stewart EA, Myers ER, et al. Leiomyoma-related hospitalization and surgery: prevalence and predicted growth based on population trends. Am J Obstet Gynecol. 2011; 205:492. doi: 10.1016/j.ajog.2011.07.008.
4. Wise LA, Tommaso SK. Epidemiology of Uterine Fibroids - From Menarche to Menopause. Clin Obstet Gynecol. 2016; 59(1): 2-24. doi: 10.1097/GRF.0000000000000164 .
5. Borah BJ, Nicholson WK, Bradley L, et al. The impact of uterine leiomyomas: a national survey of affected women. Am J Obstet Gynecol. 2013; 209:319. doi: 10.1016/j.ajog.2013.07.017.
6. Brosens I, Parazzini F, Chiaffarino F. The epidemiology of uterine leiomyomata. In: Uterine Leiomyomas. London: CRC Press; 2013. doi: 10.1201/b14628.
7. Lete I, Gonzalez J, Ugarte L, et al. Parasitic leiomyomas: a systematic review. European Journal of Obstetrics & Gynecology and Reproductive Biology. 2016;203:250-9. doi: 10.1016/j.ejogrb. 2016.05.025.
8. Salih AM, Kakamad FH, Dahat AH, et al. Parasitic leiomyoma: A case report with literature review. International Journal of Surgery Case reports. 2017:41:33-5. doi: 10.1016/j.ijscr.2017.10. 003.
9. Ahmed S, El-Agwany, Helmy R, et al. An unusual case of parasitic leiomyoma with serpentine omental blood vessels: A case report. Surgery Journal. 2013;8(2):6-8. doi: 10.36478/sjour.2013. 6.8.
10. Grover A, Bhalla S. Parasitic leiomyoma: A rare complication following laparoscopic myomectomy with review of literature. Curr Med Res Pract. 2015; 5(6):278-81. doi: 10.1016%2Fj.cmrp.2015. 10.002.
11. Bhargava P, Haque K, Vea R, et al. Parasitic leiomyoma presenting as an inguinal hernia in a postmenopausal woman. Radiology case reports. 2018;13(4):767-71. doi: 10.1016%2Fj.radcr.2018. 04.014.
12. Oindi FM, Mutiso SK, Obura T. Port site parasitic leiomyoma after laparoscopic myomectomy: a case report and review of the literature. Journal of medical case reports. 2018;12(1):1-4. doi: 10.1186/ s13256-018-1873-y.
13. Ernest A, Mwakalebela A, Mpondo BC. Uterine leiomyoma in a 19-year-old girl: case report and literature review. Malawi Medical Journal. 2016;28 (1):31-3. PMID: 27217916.
14. Al Manasra ARA, Malkawi AS, Khammash MR. Parasitic leiomyoma: A rare cause of inguinal mass in females. Saudi Med J. 2011;32 (6):633-5. PMID: 21666948.
15. Lim LM, Huang Z, Ilancheran A. Parasitic leiomyoma. Am J Obstet Gynecol. 2016: 1;215(5): 665-e1. doi: 10.1016/j.ajog.2016.07.017.