

**LEIOMYOMA IN THE BROAD LIGAMENT OF THE UTERUS: CASE REPORT****Badsi Safae\*, Benaouicha Nisrine, Ether Amina, Zeraiidi Najia, Lakhdar Amina, Kharbache Aicha, Baidada Aziz**

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**ABSTRACT**

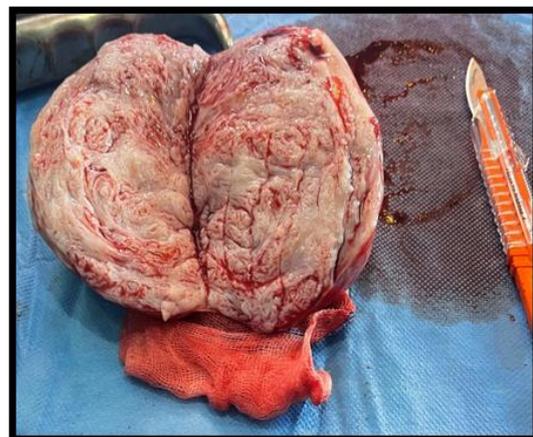
Leiomyomas of an extrauterine nature are rare and often present a more challenging diagnosis process for the clinician. We report the case of a patient who had a pelvic pain and the scanner reveals a fibroma type 6 FIGO. Finally, the localisation of the fibroma was in the broad ligament. The finding of isolated broad ligament leiomyoma rates this case as a unique kind of leiomyoma.

**INTRODUCTION**

Leiomyoma is a benign non-epithelial mesenchymal monoclonal neoplasm originating from smooth muscle cells of the myoblast or vascular wall of the myometrium or stroma composed of fibrous connective tissue.<sup>[1]</sup> Considering its uterine location, leiomyoma cellulare (LC) is mainly found in the uterine body, seldom in the uterine cervix; it is extremely rare in the ovary, and its location in the fallopian tube is highly sporadic. Cases of LC located in the parametrium are also extremely rare,<sup>[2]</sup> and in the broad ligament LC occurs in < 1% of cases.<sup>[3]</sup>

**OBSERVATION**

Mrs. M, a 50-year-old, G7P7, post menopausal for 2 years, was admitted with a history of pelvic pain of 1 year duration. There was no bowel or bladder dysfunction. She had no history of fever or sudden increase in the size of the mass. She experienced difficulty in walking. Examination of the abdomen revealed a cystic tumor extending in the right side and it measured 60 x 72 cm. Pelvic examination revealed a healthy cervix and a small uterus. On rectal examination there were no nodules in the pouch of Douglas. At laparotomy, there was a massive cystic tumor arising from the right broad ligament; it was delivered with an intact capsule. The right tube was stretched over the mass. The right ovary was atrophic; the left ovary and tube were normal and the uterus was atrophic. The tumor measured 66 x 46 x 88 mm and weighed 4 kg (Fig. 1). The histological examination of the surgical part confirms the fibromatous nature of the tumor. The patient had no complications and no recurrence during 2 years.

**Figure 1 : Per operative image of broad ligament fibroma.****Figure 3: Image shows the fibroid nature of tumor.**

## DISCUSSION

Leiomyoma cellulare is the most frequent benign tumour of female genital organs and the uterus. Outside the uterus (< 1%) it is most frequently located in the broad ligament of the uterus.<sup>[3]</sup> Clinically, these lesions may manifest as extrauterine pelvic masses that compress the urethra, bladder neck, or ureter producing symptoms of varying degrees of urinary outflow obstruction or secondary hydronephrosis. On ultrasound, a typical leiomyoma usually has a whorled appearance, with variable echogenicity depending on the extent of degeneration, fibrosis, and calcification.<sup>[4]</sup> In terms of the various imaging techniques being used, i.e. USG, CT, and MRI, it is MRI which is the most useful.<sup>[4]</sup> Transvaginal USG can show areas of altered echogenicity depending upon the degree of degeneration, fibrosis or calcification. MRI is a more precise technique to visualise those conditions. Transvaginal ultrasound can visualise the uterus and ovaries differentiated from leiomyoma. In T1-dependant scans leiomyomas give less intensive signals resembling uterine muscle.<sup>[5]</sup> Leiomyomas containing the areas of degeneration and mucoid necrosis they can be seen as the regions of high intensity in T2-dependent scans.<sup>[6]</sup> Leiomyomas of the uterus concomitant to leiomyomas of the broad ligament can distort the anatomical structure of the pelvis, and like degenerations in leiomyomas can produce complications and make differential diagnosis with ovarian malignancies more difficult.<sup>[7, 8, 9]</sup>

This observation is important because broad ligament fibroids are associated with pseudo-Meigs syndrome and produce an elevated cancer marker CA-125 levels that may point to metastatic ovarian carcinoma, thereby causing diagnostic confusion.

Moreover, preoperative diagnosis is complicated because of concomitant diseases affecting internal reproductive organs. In the case of leiomyoma higher concentrations of CA-125 also can make preoperative diagnosis more difficult.<sup>[10, 11]</sup> However, imaging diagnostics are not always completed, due to financial reasons.<sup>[3]</sup> Leiomyomas of the parametrium were often very large, and weighing from 3,000 g to 13,000 g.<sup>[12, 13]</sup> Young women had operations sparing their fertility, myomectomy was often performed.<sup>[2, 3, 14]</sup> Therefore, the recommendation that conservative treatment should be restricted to those women who want to maintain fertility is fully justified.<sup>[15, 16]</sup>

## CONCLUSION

Extra-uterine fibroids occur infrequently, although they are histologically benign, may mimic malignant tumors at imaging, and may present a diagnostic challenge. The clinical symptoms and imaging features depend on the location of the lesion and on its growth pattern. So, the differential diagnosis of extra-uterine fibroid should be considered in cases of pelvic masses with normal uterus and ovaries.

## REFERENCES

1. Auguściak-Duma A, Sieroń AL. Molekularna charakterystyka guzów leiomyoma uteri na przykładzie wybranych składników macierzy pozakomórkowej. *Postępy Hig Med Dośw*, 2008; 62: 148-165.
2. Chmaj-Wierzchowska K, Buks J, Wierzchowski M, et al. Leiomyoma cellulare in the broad ligament of the uterus – case report and review of literature. *Ginekol Pol*, 2012; 83: 301-304.
3. Bakari F, Sulayman HU, Avidime S, et al. Huge broad ligament leiomyoma: a case report. *Case Reports in Clinic Med.*, 2015; 4: 55-59. <http://creativecommons.org/licenses/by/4.0/>.
4. Fasih N, Shanbhogue AKP, Macdonald GB, et al. Leiomyomas beyond the uterus: unusual locations, rare manifestations. *Radiographics*, 2008; 28: 1931-1948.
5. Jeong GA. Retroperitoneal leiomyoma of the uterus mimicking sarcoma in perimenopausal women: case report. *J Menopaus Med.*, 2014; 20: 133-137
6. Rajanna DK, Pandey V, Janardhan S, et al. Broad ligament fibroid mimicking as ovarian tumour on ultrasonography and computer tomography scan. *J Clin Imaging Sci.*, 2013; 28: 23-28.
7. Preeti B, Dinesh G. A case of massive broad ligament leiomyoma imitating an ovarian tumour. *J Clin Diagn Res.*, 2014; 8: 136-137.
8. Chang CC, Hsieh YY, Lin WH, et al. Leiomyoma and vascular endothelial growth factor gene polymorphisms: a systematic review. *Taiwan J Obstet Gynecol*, 2010; 49: 247-253.
9. Madej P, Madej JA. Patomorfoza mięśniaków macicy u kobiet. *Gin Pol Med Project*, 2008; 3: 32-42.
10. Markowska A, Słomko Z. Mięśniaki macicy. In: *Ginekologia*. Słomko Z (ed.). Wyd. Lek. PZWL, Warszawa, 2008; 148-165.
11. Jagtap SV, Gupta A, Kshirsagar NS. Broad ligament myoma mimicking as ovarian tumour. *Sch J App MedSci.*, 2014; 2: 258-260.
12. Godbole RR, Lakshmi KS, Vasant K. Rare case of giant broad ligament fibroid with myxoid degeneration. *J Sci Soc.*, 2012; 39: 144-146.
13. Soliman AA, ElSaba B, Hassan N, et al. Degenerated huge retroperitoneal leiomyoma presenting with sonographic features mimicking a large uterine leiomyoma in an infertile woman a history of myomectomy: a case report. *J Med Case Reports*, 2011; 5: 578.
14. Chaudhari HK, Parulekar SV. Large broad ligament leiomyoma. *J Postgr Gynecol Obstet*, 2015; 3(6). Available from: <http://www.jpgo.org/2016/06/large-broad-ligament-leiomyoma.html>.
15. Guraslan H, Senturk MB, Helvacioğlu C, et al. Recurrent cellular leiomyoma 10 years after total abdominal hysterectomy. *J Obstet Gynaecol*, 2015; 35: 854-855.
16. Guan R, Zheng W, Xu M. A retrospective analysis of the clinicopathologic characteristics of uterine

cellular leiomyomas in China. *Inter J Gynecol Obstet*, 2012; 118: 52-55.