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Case Report

Uterine multiple leiomyoma: a case report

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ABSTRACT

Uterine leiomyomas are benign growth arising from smooth muscle cells of uterine myometrium and it the most common neoplasms of the uterus. Multiple myomas are common and usually cause diagnostic and therapeutic problems due to their size, clinical features, and degeneration. Their diagnosis is usually not missed due to wide spread use of ultrasound in gynecological department. In this article, we present a multiple myoma case in a 39 years old woman who presented with heavy menstrual bleeding, prolonged menstrual cycle, anemia, and dysmenorrhea for six months. Physical and radiological examination revealed the presence of multiple masses arising from the uterus. Myomectomy was done for the same (multiple fibroids enucleated). Histological examination confirmed the same. The patient's postoperative period was uneventful and she was discharged after 4 days and followed up after 2 months.

Keywords: Leiomyoma, Myoma, Fibroid

INTRODUCTION

The word leiomyoma, myoma, and fibroid are used interchangeably. Uterine leiomyomas are benign growth that represent the most common neoplasm of the uterus affecting 70% to 80% of women aged 50 and above. Leiomyoma prevalence increases through the reproductive years and is markedly reduced after menopause. They mostly occur in women above 35 and infrequently in adolescence.[1] The pathogenesis of leiomyoma is generally unknown but certain proposed theories show that these fibroids grow in response to stimulation of estrogen, progesterone, and other growth factors. Other risk factors include positive family history, infertility, black race, red meat consumption, and high blood pressure.[2] These tumors can be solitary, multiple, and present in various sizes. Uterine fibroid sizes can range from as large as a melon to as small as a coin. Small tumors are usually asymptomatic while the larger ones can cause symptoms including uterine bleeding, pelvic pain, dysmenorrhea, infertility, constipation, frequent urination, myomas erythrocytosis syndrome, pseudo-Meigs syndrome, preterm labor.[3] Gold standard treatment for uterine fibroids is hysterectomy, or myomectomy in women who desire uterine preservation. However less invasive techniques have recently been developed. In women of child-bearing age presenting with multiple large fibroids, who requires fertility preservation treatment planning can be complex, particularly if hysterectomy would be the safer approach.[4] This case report describes a 39-year-old female with symptomatic large multi-fibroid uterus, who desired uterine preservation.

CASE REPORT

A 39-year-old female, P2L2A1, presented with complaints of heavy menstrual bleeding for the past 6 months, along with easy fatigability, weight loss, and lower abdominal pain (on and off) for the same duration. History of 2 units of packed red blood cells (PRBC) transfusion in view of hemoglobin 5.7 g/dl to 10 g/dl. No significant past history/comorbidities. She reported no changes in bowel habits and denied genitourinary symptoms. She attained menarche at 13 years, has had regular menstrual cycles of 6/30 days using 3-4 pads per day, and reports no history of dysmenorrhea. Her obstetric history includes gravida 3,

para 2, live 2, abortions 1 (P2L2A1), with all deliveries being normal vaginal deliveries (NVD) and subsequent sterilization. Her family history reveals that her younger sister, who is nulliparous, underwent two myomectomies (one open and one laparoscopic). On examination, her general condition was fair, stable with body mass index (BMI) of 22.5 kg/m², pulse rate of 78 bpm, blood pressure of 110/60 mmHg, and temperature of 98.6 °F. Pallor was noted, but there was no icterus, clubbing, or lymphadenopathy. Systemic examination was normal. Abdominal examination revealed a uterus corresponding to 28 weeks' size firm, irregular, non-tender and mobile mass occupying the midline and extending to the right and left iliac fossae, along with a healthy sterilization scar. Per speculum examination showed the cervix pulled very high and difficult to visualize, though the vagina was healthy. On per vaginal examination, the uterus was anteverted, corresponding to 28 weeks' size, with no free fluid, fornicial tenderness, or cervical motion tenderness.

Investigations included a transvaginal scan (TVS) of the pelvis which showed an anterior wall type 5 fibroid measuring 7.32×6.02 cm in an anteverted uterus. Transabdominal scan (TAS) revealed that the ovaries were difficult to image and the uterus measured 24-26 weeks' size (18.43×8.24×14.09 cm). Neither ascites nor hydronephrosis was noted. Multiple fibroids were observed: anterior wall type 4 and 5 fibroid measuring 6.11×5.94 cm, anterior and posterior wall fibroids in the fundus region (anterior wall 3.62×3.66 cm, posterior wall 3.37×3.75 cm, type 4 and 5), a fundal fibroid type 4 measuring 3.5×2.9 cm, and a small seedling fibroid in the posterior wall measuring 2 cm.

The patient was counselled about the diagnosis of multiple uterine fibroids. Patient was given both the options of hysterectomy/myomectomy. Patient opted for myomectomy in view of uterine preservation. Hence underwent the same procedure after proper counselling and informed written consent.

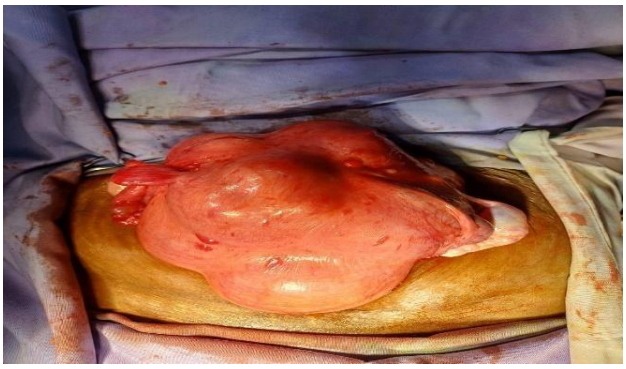

Figure 1: Intra operative image of exteriorized uterus, showing multiple fibroids.

Intraoperative findings revealed a uterus of 24-week size with a 5×6 cm fibroid in the anterior myometrium, a 4×5 cm fibroid in the left lateral myometrium, a 3×2 cm fibroid in the right lateral myometrium, and a 2×3 cm fibroid in the posterior myometrium (Figure 1). Additionally, 16 seedling fibroids measuring 2-3 cm were noted (Figure 2). Specimen was sent for histopathological examination confirmed benign fibroid of uterus.

The provisional diagnosis is a 39-year-old female, P2L2A1, NVD, sterilized, presenting with abnormal uterine bleeding (AUB-L) associated with anemia.

Figure 2: Excised fibroids after myomectomy.

DISCUSSION

Uterine leiomyoma is the most common, solid, and benign tumor of the pelvis affecting 20% to 30% of women in their reproductive ages. The weight of these tumors can be different as the multiple ones tend to grow rapidly that can be so large without any signs and symptoms. Until now the largest and multiple fibroids that have been reported is weighting 63.3 kg, which was found in a woman after her death.[5] These tumors have a high prevalence in multiparous women and those in their reproductive ages. Our patient was 39 years old. About 60% of tumors are multiple as was seen in our case. Most of these tumors especially the small ones are asymptomatic. Symptoms in larger and multiple ones include abdominal pain, abdominal mass, abnormal vaginal bleeding, menorrhagia, infertility, constipation, urination problems, and so on. Our patient presented with many of these symptoms especially prolonged heavily bleeding and anemia.

Uterine leiomyomas are often confused with conditions such as adenomyosis, hematometra, uterine sarcoma, ovarian masses, and even pregnancy. Non-gynecological conditions like gastrointestinal tumors or inflammatory processes are also part of the differential diagnoses. The coexistence of fibroids with endometriosis and adenomyosis, coupled with overlapping symptoms, further complicates accurate diagnosis and significantly diminishes diagnostic confidence.[6]

The location of fibroids relative to the uterus plays a significant role in the patient symptoms and diagnostic accuracy. Myomas are commonly found within the muscular layer (intramural; 70% of cases), on the outer surface (sub serosal; 20% of cases), or inside the uterine

cavity (submucosal; 10% of cases), sometimes connected by a stalk (pedunculated). Pedunculated sub serosal fibroids can cause acute symptoms due to torsion, leading to vascular obstruction and necessitating urgent surgical intervention. These fibroids often mimic ovarian pathologies. Additionally, uterine cancer, such as carcinoma, is a crucial differential diagnosis, while sarcomas and carcinosarcomas are rare but should also be considered.

The initial step in evaluating a woman with a leiomyoma is pelvic examination. However, the small tumors are not palpable but the larger and multiple ones are.[7] The next step is the radiological examination, which is used to reveal the size, location, number, and extension of the tumors. Among all radiological examinations, the initial diagnostic adjunct should be ultrasonography, owing to its diagnostic accuracy, cost-effectiveness, and wide availability. Magnetic resonance imaging (MRI) and computed tomography (CT) are used for differentiation and observation of malignancy changes. Tumor marker tests can be very helpful to diagnose malignancy but the most important diagnostic tool is histopathology that was done with our case.

The treatment of these tumors depends on the symptoms, types, size, and location of the tumor as well as the patient's age, menopause, fertility, and facilities. The treatment of these tumors includes medical, surgical, and uterine artery embolization. Uterine-sparing surgery is generally recommended in women of child-bearing age in an effort to preserve fertility and in women wishing for uterine preservation with minimally invasive surgical techniques preferred over hysterectomy. In those desiring fertility or uterine preservation myomectomy is generally recommended over uterine artery embolization (UAE). This is due to UAE being associated with a higher rate of re-intervention, a higher likelihood of intra uterine adhesions.[8] In this case hysterectomy was recommended due to the size of patient's fibroids and safety concerns, particularly regarding intraoperative blood loss. As this patient declined hysterectomy due to her desire to preserve her uterus. Ultimately the surgical team worked to respect the patient's wish and myomectomy was done as a completion of her treatment.

CONCLUSION

Uterine leiomyomas are one the most common tumors. Patients with leiomyoma have different types of clinical features. The initial step in evaluating a woman with a pelvic and abdominal mass is pelvic examination. If leiomyoma is suspected the initial, diagnostic adjunct should be ultrasonography, especially in poor countries owing to its cost-effectiveness and wide availability.

It is necessary to take the abdominal masses under monitoring in their early stages because the larger ones often cause diagnostic and therapeutic problems as well as poor prognosis. Accurate diagnosis can be performed with laparotomy and histopathology so it is needed to rule out malignancy for all abdominal masses by this examination. Whenever the diagnosis is made earlier the problems and complications will be fewer.

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