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GIANT LEIOMYOMA IN A 35-YEAR OLD REPRODUCTIVE AGE WOMAN- A RARE CLINICAL PRESENTATION

Obstetrics & Gynaecology

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ABSTRACT

Uterus, a hormone responsive organ is known to a play an important role in menstruation, fertility and pregnancy. It is most commonly affected organ with tumors and cysts. The most prevalent pelvic tumors, known as leiomyomas, are derived from the myometrium, or smooth muscle cells of the uterus. They account for 80% in women of age 30-50 years. The prevalence of leiomyoma increases during the reproductive years and will gradually reduce after menopause. Few risk factors which cause leiomyoma during reproductive ages in women include infertility, family history, ethnicity, black race, red meat consumption, exposure factors and hypertension. Medical and surgical interventions are two main management aids to eliminate leiomyomas.

KEYWORDS

Uterus, Uterine leiomyomas, reproductive women, leiomyomectomy, case report

INTRODUCTION:

The most prevalent pelvic tumors, known as leiomyomas, are derived from the myometrium, or smooth muscle cells of the uterus. These leiomyomas are made of huge extracellular matrices such as fibronectin, collage and proteoglycan.[1] They are the most common neoplasms of uterus diagnosed in gynecological departments creating a diagnostic dilemma and surgical challenge to gynecologists due to their non-clinical presentations, sometimes asymptomatic and abnormal degenerations. They account for 80% in women of age 30-50 years. This accounts for more than 60,000 surgeries of overall hysterectomies in United states of America.[2] The leiomyoma is also known as myoma or fibroid which is often used interchangeably. The prevalence of leiomyoma increases during the reproductive years and is gradually reduced after menopause.

Though the stimulation of hormones such as estrogen, progesterone and other growth factors cause leiomyomas, the actual pathogenesis is unknown and can be multi- factorial.[3] Few risk factors which cause leiomyoma during reproductive ages in women include infertility, family history, ethnicity, black race, red meat consumption, exposure factors and hypertension.

Myomas can be either intramural, sub serosal, sub-mucosal and can be single or multiple with variation in sizes. The variation in sizes can be large as a melon to small as a coin.[4]

Small sized multiple myomas are usually asymptomatic while the larger uterine myomas can cause symptoms such as irregular or abnormal uterine bleeding (AUB), dysmenorrhea, infertility, frequent urination, constipation, increased abdominal girth, pelvic heaviness, erythrocytosis syndrome, pseudo-Meigs syndrome, miscarriages, preterm labor, and so on.[5] In this case report we present an abnormally large uterine multiple leiomyomas in 35-year-old married woman.

Case Presentation:

A 35-year-old married female patient residing in Ukraine visited the outpatient gynecological department with a chief complaint of increase in size of the stomach for the past 3 years. The abdominal distension was thought to be obesity by the patient and ignored the distension for 2 years. Patient had visited few other hospitals for the same complaint. She came after several attempts to find possibility of organ preservation surgery and several hospitals denied preservation and advised myomectomy. Patient gradually developed abdominal pain, difficulty in urination and hemorrhagic signs during the past 2 years. There was no history of constipation, pedal edema, varicose veins, weight loss or nausea and vomiting. Her menstruation cycle was normal for the past 23 years, regular with 4 period days and 3-4 pads daily. She had dysmenorrhea occasionally and did not give any history of inter menstrual bleeding, post coital bleeding or heavy bleeding. Patient also gave a family history of hypertension and no surgeries in the past.

On general examination, there were no signs of anemia, pallor or pedal edema. Her vital signs were normal. Body mass index of the patient was 32.8 kg/m^2. During per-abdominal examination, the abdomen appeared to be distended to a size of 30 weeks of pregnancy. There were symptoms of compression of organs, decreased respiration, difficulty and increased quantity of urination "feeling of distended bladder "all the time.

On examination, abdominal distension was smooth, non-mobile and non- tender. There were no abdominal varices and hernias. There was no sign of flank fullness.

Initial laboratory examination tests were done which included hemoglobin and found to be 10gm%, Carciunoma 125, a key screening test to detect ovarian cancer and Alfa fetoprotein which is produced by fetal liver and yolk sac. These appeared to be normal. Her liver and renal function tests were in normal range.

Ultrasonography (USG) was done to rule out any pregnancy. Without a separate view of the uterus, USG showed a massive, multiple abdominopelvic masses with enhanced vascularity.

Magnetic resonance imaging with contrast was also done to rule out any sarcoma of abdomen. MRI report revealed smooth circumscribed borders of myomas with early homogenous enhancement.

Leio myomectomy was advised to the patient after prescribing a dose of GnRH analogues which helped in reduction in size of abdomen to a size of 28 weeks of pregnancy. Proper counselling and informed consent were taken from the patient and the procedure was explained to her and her family members.

A horizontal incision was given to gain access to uterus (Figure 1). 17 fibroids (Figure 2) of varying size were removed carefully and the incision was closed in layers. The estimated blood loss intra-operatively was 300 ml. Blood transfusion was not advised. Antibiotic prophylaxis was prescribed. The gross specimen was weighing 5.102 Kgs (figure 3). The biggest fibroid measured about 16*15 cm and 10*10 cm approximately (figure 4). There were no adhesions in the uterus and the fallopian tubes and ovaries were normal. Post-operative vitals were normal.

Patient was discharged on 4th day after the surgical procedure. The Hb was retested and found to be 10 gm/dl. The patient was recalled after 2 weeks for checkup and she showed complete recovery, significant improvement in quality of life and decreased symptoms.

Figure 1: Gaining access to uterine myoma, removal of the growth

Figure 2: Intra operative mass of uterine leiomyoma. A complete horizontal incision was given to remove multiple fibroids. Here, hysterectomy was not done.

Figure 3: Weight of entire fibroids. The fibroids were weighing 5.012 kgs approximately

Figure 4: Measurement of multiple fibroids operated from a 35-year-old woman. The largest ones were measuring 16 * 15 cm and 10 * 10 cm approximately.

DISCUSSION:

Uterine leiomyomas are most common pelvic tumors which affect the women in reproductive age group.[2] Diagnosis of leiomyomas always depend on the physical examination findings and clinical symptoms. Initial investigations such as CA 125 and MRI[6] can help us to rule out malignant tumors such as sarcomas. Post-operative pathology report can also aid in ruling out these malignant tumors.

Leiomyomectomy is the standard advised surgical approach to remove leiomyomas from the uterus. Myomectomy has an advantage of avoiding morcellation as seen in laparoscopic approach. This procedure can be performed by taking the consent of the patient. She can undergo either myomectomy or myomectomy with hysterectomy to avoid further fibroid formations in uterus.

Few cases in the past have also been reported. An article in 1888 reported the largest known uterine fibroid, weighing 63.3 kg which was excised in postmortem. However, 45.4 kg was the weight of the largest tumor ever removed from a patient through the surgical treatment.[7] In India, a 38-year-old premenopausal woman was reported to have a big uterine leiomyoma weighing 15.2 kg. This was removed by total abdominal hysterectomy.[8]

In our case, we had preserved the uterus and attempted only myomectomy without hysterectomy which could help the patient to conceive in further years. She also had minimal to no post-operative complications and uneventful healing.

Recent systematic review suggests the use of GnRH analogues such as leuprorelin acetate pre and post operatively to reduce the size of fibroids, to improve hemoglobin level, decrease hospital stay and enhance better healing.[9] Therefore, prescribing GnRH analogues prior to surgical intervention can be a great option for women with multiple large fibroids.

CONCLUSION:

Leiomyomas are the most common uterine benign fibroids which can appear as single mass or as multiple masses. They pose a significant challenge to both patient as well as gynecologists. Thorough history and examination can help in better differential diagnosis and management. They are often be confused as malignant tumors due to their unusual growth and leiomyomas larger than our case report will be diagnosed in future in various developing countries due to increased risk factors. Appropriate diagnosis and counselling in early stages can help in avoiding total hysterectomies.

Surgical interventions such as myomectomy and/ or hysterectomy can help in complete removal of fibroids but can pose a greater challenge to gynecologists. Definitive diagnosis and regular follow up can help in avoiding recurrence of leiomyomas in reproductive age women.

In this case report, we present 35-year-old married woman residing in Ukraine with large uterine leiomyoma weighing 5.102 kg. The patient initially complained of increase in size of abdomen in the past 3 years and few other symptoms such as abdominal pain, dysmenorrhea, dyspnea and difficulty in micturition. No signs of malignancy were found based on Ca 125, magnetic resonance imaging (MRI) and post-operative tissue biopsy.

Declaration Of Conflicting Interests

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