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A RARE CASE REPORT ON ACCESSORY CAVITATED UTERINE MASS (ACUM).

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ABSTRACT **Introduction:** An unusual type of Müllerian aberration in development that impacts young females, Accessory and Cavitated Uterine Mass (ACUM) manifests as severe dysmenorrhea and persistent, recurring pelvic discomfort. The infrequent appearance, vague symptoms, and modest bulk volume of this abnormality can contribute to an underestimation and underdiagnosis. **Aim:** This study aims to analyze all instances reported in the literature and report on the individuals under the care of young ladies undergoing surgery for an ACUM in the hospital in 2022. **Method:** The primary outcomes that are evaluated the diagnosis made by imaging tools, the kind of surgery done, and how the symptoms developed following surgery. For identifying ACUM, magnetic resonance imaging (MRI) is the most effective imaging method.We present one example of a young lady who presented with an ACUM and required hospital surgery. **Result:** Excision with surgery is the only permanent remedy. Utilizing laparoscopic access for minimally invasive surgery is the most often employed and accepted approach. Recently, a few novel treatment techniques were reported, with ethanol sclerotherapy appearing to be one of the most promising. A patient with a large uterine cornual tumor, age 26, is the subject of this case report. Through surgical excision, a successful resection was achieved, and an ACUM lesion was identified. **Conclusion:** Early surgical intervention, such as laparoscopic or laparotomic mass ectomy, can be able to spare these young women from their typical extended pain.

KEYWORDS : Müllerian aberration, Young Females, Chronic pelvic pain, Dysmenorrhea,Uterine mass

INTRODUCTION

An uncommon congenital Mullerian abnormality known as an accessory cavitated uterine mass (ACUM) occurs when an auxiliary cavity with a normal endometrial lining is located inside a uterus that is typically formed and functions properly [1, 2]. The common Mullerian uterine deformity mentioned. It is believed that the continued existence or replication of Mullerian ductal tissues, which originated from gubernaculum dysfunction, leads to the formation of additional uterine tissue [3, 4]. When young, nulliparous women use oral contraceptive pills (OCP) or analgesics but have severe dysmenorrheal and recurring pelvic pain, ACUM is reported [5, 6]. A few exhibit poverty. A complicated diagnosis to create, ACUM is regularly underdiagnosed. Adenomyosis with cystic or deteriorated region, cavitated uterine horns, and degenerated fibroids are examples of disparity diagnosis [7, 8]. Hysteroscopy, MRI, and ultrasound scans are useful in the analysis procedure. For the rare cases known as dysmenorrhea ACUM, there are two possible treatments: medication and surgery. Even if oral contraceptives and nonsteroidal anti-inflammatory medications are short-term solutions, issues frequently return.Reproductive health can be enhanced and symptoms can be relieved via surgery. Treatment for ACUM is frequently postponed because of its rarity [9, 10]. This case report offers insight into the diagnosis and management of ACUMs by describing the course of a big ACUM in a young lady.

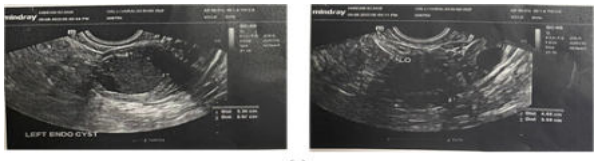
Case Study

On November 3, 2022, a 26-year-old lady was physically examined at Sree Balaji Medical College and Hospital, Chennai. An ultrasound examination showed a 3.3 x 2.6 cm cyst with low-level internal echoes identified in the left ovary, no adnexal area, and a right ovarian cystic echogenic mass measuring 1.5 x 1.5 cm that was assumed to be physiological. The impression shows a simple right ovarian cyst, an endometriotic cyst in the left ovary, and normal studies of the liver, pancreas, spleen, kidney, bladder, and uterine. Although it was suggested that the patient undergo more diagnostic testing at a prestigious facility, she chose not to pursue further care. After sexual activity, the patient periodically had manageable lower abdomen discomfort. After consuming junk food, and cold meals, the discomfort got worse before getting better with rest.She had lower abdomen pain for 4 months. The patient consults outside and takes a painkiller to reduce abdomen pain.

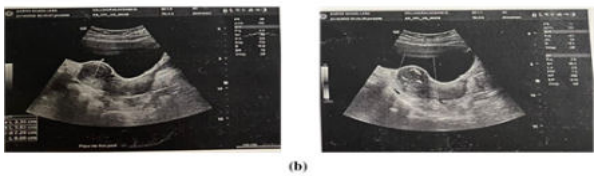
On August 9, 2022, the patient arrived at the medical facility. She was married, and she had a history of spontaneous abortions at two months gestation . Before six months, her menstrual history was erratic, with cycles lasting five to six or forty-five to sixty days. Her menstrual flow was normal, and she needed to take medications because of severe, ongoing spasmodic discomfort. She has never had any trauma or surgery before. Her menstrual cycle had begun, but with a decreased flow and no painful clots. The patient had fairly minor menstrual pains when she first encountered menarche at the age of 13. The first day of her monthly cycle was the worst, and the pain remained all through. She did occasionally turn to pain medicine, but overall, it had little impact on her quality of life. The gynecological evaluation revealed no pain, typical activity, and a huge uterus with medium thickness. The bilateral adnexal areas likewise showed no pain.A full blood count indicates that the hemoglobin level is 12.2 g/dl, the packed cell volume is 38.4%, the blood group is "A1," and the Rh type is positive. An endovaginal ultrasound examination showed that there isn't a measurable right adnexal anechoic lump. Exhibit typical parenchymal echoes of normal size in the liver. The liver, portal vein, IHBR, CBD, hepatic veins, and perihepatic area shows no signs of localized lesions. The endometrium seems normal, measures 10.4 mm in thickness, and has no uterine fibroids. The uterus is anteverted and measures 6.7 x 3.5 cm. Myometrial echoes are normal.

Ultrasound and MRI – Pelvis

Pelvis Ultrasonography (USG) revealed a well-defined heteroechoic lesion with peripheral vascularity and calcification measuring 3.8 x 3.3 cm seen in the anterior wall, as well as an anteverted, normal-sized uterus measuring 8.7 x 3.5 cm, a regular endometrium measuring 11.3 mm, and a myometrium exhibiting normal echogenicity. (The right ovary calculated 4.3 x 3.3 x 2.0 centimeter with a volume of 15 cc), (the left ovary calculated 2.5 x 3.1 x 1.9 centimeter with a capacity of 8 cc)), according to the USG-pelvis, and the right ovary had a function cyst of 2.3 x 1.5 cm. The size of both ovaries is increased, and many small follicles with core echogenic stroma are placed peripherally are shown in Figure 1 (a, b). There is no evidence of free fluid in the pouch of Douglas and no adnexal mass lesion was seen .



(a)



(b)

Figure 1 (a, b): USG-pelvis in left and right ovary image scanning in 26 y/o women

The results of the pelvic magnetic resonance imaging (MRI) revealed that the junctional zone contained normal, the endometrium seemed normal, and the uterus measured 10.2 x 5.5 x 3.4 (CC x AP x TV). No overt myometrial invasion is observed. The vagina and cervix have a typical appearance and signal intensity pattern. According to the MRI-Pelvis, ((the left ovary calculated 2.7 x 2.7 x 1.8 centimeter with a capacity of 10 milliliter), (while the right ovary calculated 4.1 x 3.5 x 1.7 centimeter with a volume of 24 milliliter)). Both ovaries had many microscopic folliculi organized peripherally. Figure 2 displays a well-defined T1 hyperintense and T2 hypointense lesion that measures 3.1 × 2.8 x 2.3 cm (TC x AP x CC) and observed abutting the uterine left collateral wall. On DWI images, the lesion exhibits moderate diffusion limitation. There aren't many calcific foci inside the lesion, and the visible bone structure seems normal.

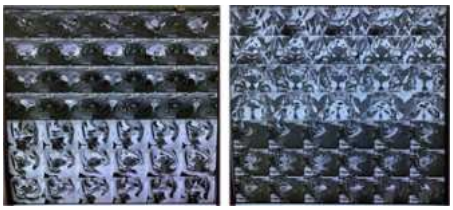


Figure 2: MRI-Pelvis of T1 hyperintense and T2 hypointense lesion

Procedure

On November 7, 2022, a laparoscopic examination revealed a 4cm x 3cm mass in the anterolateral aspect of fundus and followed to an open procedure were carried out. Regarding the fundal mass and anterior of the left uterine cornua (Figure 3(a), (b)). Partial lamellar adhesions between the tumor's posterior wall ,the round ligament and left tubal were seen (Figure 3(c)). The left anterior uterine wall and left uterine cornua were cut to remove the tumor. The tumor had a distinct border .It had cystic area . The tumor removal process went smoothly despite its complexity. There were no visible papillary projections ,greyish brown tissue filled with hemorrhagic material noted. Unequally thick uterine muscle made up the cyst wall. Once the cystic tumor was excised, assessment of the surgery disturbance site showed no evidence of uterine void attachment without damage (Figure 3(d)). After the tumor-causing endometriosis (adenomyoma) was removed, saline irrigation was performed in the remaining cavity, and electrocoagulation was used to stop any bleeding that was still occurring.

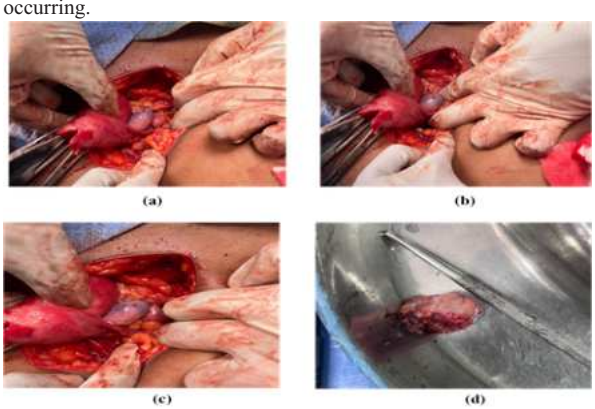


Figure 3: procedure (a-c): image of the partial lamellar adhesions on the tuberous protuberance on the left uterine fundus and cornua (d): Removed endometriosis (adenomyoma) tumor

Histopathology

The surgical specimen was transported to be examined pathologically. Upon receipt of 3 cm in diameter globular grey-white to grey-brown soft tissue mass, the early stage (E/S) and Cesarean section (C/S) sections exhibit firm to hard consistency and a cystic region filled with hemorrhagic material, respectively, with two blocks. The section on microscopy reveals endometrial-type glands encased in bundles of spindle-shaped cells with elongated nuclei and interlacing fascicles. Endometrial glandular epithelial cells with stroma and blood clots are seen to border cystic regions. The clinical symptoms, anatomical location, and pathologic findings were combined to arrive at the ultimate diagnosis of ACUM.

DISCUSSION

The lesion known as ACUM was first identified as a single uterine anterior lateral wall cystic lesion, below the round ligament's connection. For young women, ACUM is a significant contributor to pelvic discomfort during menstruation. It's unknown where ACUM came at the moment. According to one theory, the emergence of round ligament dysfunction can be linked to the tissue of the Müllerian duct that persists or duplicates. In these situations, the atypical Müllerian ducts merge and absorb normally with the corresponding opposite side with symmetric Müllerian ducts, and free aberrant chambers emerge, culminating in the creation of ACUM, a new abnormality of the Müllerian flow. The prevailing diagnostic standards for ankyloglossia of the mouth ACUM primarily include the following: The uterine adnexal cavity has endometrial tissue, chocolate-like fluid, normal fallopian tubes, and ovaries, surgically removed cavity-like lumps, and no adenomyosis (though it cannot be ruled out from the image). Severe dysmenorrhea and persistent pelvic discomfort were among our patient's clinical complaints; medicine was ineffective in relieving the pain. The discomfort frequently happened on the same side as the lesion, which might have been brought by ongoing pressure buildup inside the lesion cyst's contained region as well as sporadic bleeding. Previous research indicates while ACUM lesions are modest in size, and a thorough inspection is necessary.

The current case demonstrates that doctors should be aware of the risk of ACUM even in cases with bigger lesions in individuals who have consistent age and clinical symptoms. The transvaginal USG can show the location, shape, and general composition of the lesion, making it the preferred technique for straightforward and reliable diagnosis. The position and content of lesions can be reliably assessed by MRIs, which helps in the selection of appropriate surgical procedures. Hysterosalpingography, which shows anomalies both contralateral fallopian tubes and the uterus, can aid in the differentiation of ACUM from other reproductive system abnormalities. Teenagers who have never engaged in sexual behavior before, are unable to undergo it. Medication, surgery, and surgical techniques such as ethanol sclerotherapy, and excision of the uterine appendage mass are common care modalities for ACUM. The best treatment for ACUM is laparoscopic mass removal with uterine preservation. Due to improvements in imaging technology, ACUM cases have increased recently, although the diagnosis rate is small. Gynecologists and radiologists should be informed about the imaging indicators and clinical characteristics of ACUM, particularly for tiny lesions that need to be carefully detected and differentially diagnosed. Long-term follow-up is required, as an effective personalized treatment strategy. In women with gigantic pelvic lesions, the example of a huge ACUM provides fresh insight into the use of ACUM as a potential differential diagnosis in unusual situations including persistent pelvic discomfort.

CONCLUSION

It is difficult to identify ACUM and a high index is necessary. Because dysmenorrheal affects the majority of ACUM patients, surgical removal is necessary and voluntarily proficient with a laparoscopy. The study discusses the dispute of differentiate an asymptomatic cystic lesion from its disparity diagnosis, particularly when the lesion is huge. To understand the illness, it highlights the requirement for improved clinical and imaging capabilities. The study also emphasizes the requirement of long-term monitoring and appropriate surgical technique in situations where pharmaceutical treatment proves to be useless. Since great ACUMs are harder to discover than small one, permanent assessment and examination are necessary. Sympathetic ofthe particular features of large ACUMs and organization strategies are essentially improving patient outcomes and lowering the risk of mistaken diagnosis. For effectual treatment, it is, consequently, necessary to incessantly increase clinical information and diagnostic ability.

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