CASE REPORT

A Rare Case of Pelvic Organ Prolapse in a Bicornuate Uterus with Successful Pregnancy Outcomes Undiagnosed Until the Time of Vaginal Hysterectomy at Jnu Medical College, Jaipur

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ABSTRACT

The reproductive stage is when Mullerian development abnormalities (MDAs) are most frequently identified. A deficiency in the union of the Mullerian ducts, which results in an unnatural fundal contour, leads to a bicornuate uterus. In the majority of cases, obstetrical difficulties such as recurrent pregnancy loss, premature birth, intrauterine growth restriction, placental abruption, and cervical incompetence are present at the time of diagnosis, which occurs early in life in most cases. Pelvic organ prolapse (POP) in women with MDAs has been documented, although all of these cases included premenopausal young women under the age of 35 who had their MDAs diagnosed either before to or concurrently with the onset of POP. A 40-year-old perimenopausal lady who delivered all her babies vaginally and successfully at term came to the gynae OPD with the chief complaint of something coming out of vagina. On POP-Q examination, the cervix was elongated and descended to 1 cm outside the hymen during bearing down. However, the uterine body was confined in the pelvic cavity. She was also diagnosed with bicornuate uterus, and for advanced-stage POP, she underwent a vaginal hysterectomy with pelvic floor reconstruction. The bilaterally expanding uterine horns inside the pelvic cavity traps the uterus within the pelvis, is thought to have been the reason of prevention of total uterine prolapse. Here, we describe a rare instance of a bicornuate uterus that allowed for multiple healthy vaginal deliveries at term without any obstetric difficulties but that wasn't discovered until the woman was treated for POP during her perimenopausal period.

Key words: Pelvic organ prolapse, Pregnancy, Mullerian duct anomalies.

INTRODUCTION

The Mullerian or paramesonephric ducts fail to grow properly during embryonic development, leading to congenital malformation of the female genital tract. Anytime the intricate process of cellular differentiation, migration, fusion, and canalization is dysregulated, Müllerian development abnormalities (MDA) result. Uterine agenesis and uterine hypoplasia or a unicornuate uterus are the outcomes of Mullerian Duct failure and incomplete development, respectively (1).Uterus didelphys, bicornuate uteri, and arcuate uteri are the outcomes of incomplete MD fusion. MDAs are uncommon, having a 4%–7% frequency. One-fourth of MDAs are caused by a bicornuate uterus (2,3). MDAs have been linked to premature birth (PTB), caesarean delivery, malpresentation, and pregnancy loss. Although there is a higher incidence of obstetrical issues such placental abruption, intrauterine growth restriction (IUGR), recurrent pregnancy loss, PTB, and cervical incompetence in women with bicornuate uteruses, conception does not appear to be

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influenced by this condition (4). The main factor contributing to pelvic organ prolapse (POP) is the uterus's supporting ligaments becoming weaker. Age and multiparity are certainly risk factors for the occurrence of genital prolapse.

POP is classified as anterior compartment prolapse, apical compartment prolapse, and posterior compartment prolapse (5). The most prevalent kind of anterior compartment prolapse is multi-compartment POP, which typically manifests in older women, as opposed to apical compartment POP in younger women.It is uncommon to diagnose MDAs linked to POP in elderly patients. MDAs are typically identified during examination as a result of symptoms such amenorrhea and stomach discomfort, although even in the absence of symptoms, complications with obstetric outcome may have occurred (6).

Here, we describe a rare instance of abicornuate uterus that went undetected throughout pregnancy and labour. She delivered normally via vaginal births without any obstetric issues or complications, carrying her pregnancies to term. She learned about her bicornuate uterus when she was given a POP diagnosis (7).

CASE REPORT

A 40-year-old woman (P4,L4) presented in the gynae OPD with the chief complaint of something coming out of vagina for five years without any urinary problems. She had a history of four vaginal deliveries without dystocia, malpresentation of the baby, or IUGR at term. All her pregnancies were spontaneous conceptions. Her obstetric history (P4L4) included 4 full-term live vaginal births without any complications. However, it is incredibly uncommon for women with bicornuate uteruses to have successful normal pregnancies and births.

According to the Pelvic Organ Prolapse Quantification System, a pelvic examination at the initial visit indicated one vagina, one cervix, and POP-Q stage III (+3, +5, +1, 0, 0, -3) (6, 4, 8). The most distal part of the cervix descended one centimetre beyond the plane of the hymen, and the anterior vaginal wall was completely prolapsed (cystocele). Rectocele and enterocele were not present.

Findings from a transabdominal sonogram on May 16, 2022 were as follows:

Uterua was Retroverted and of average size and morphology.

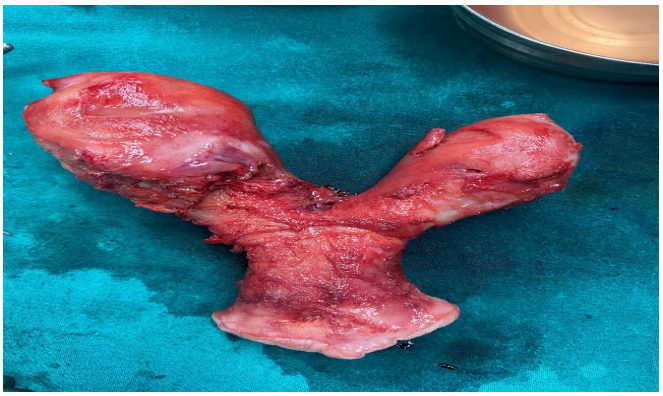
8.1 mm is the endometrial thickness. Uterus was lying low.

B/L adnexa normal.

On May 17, 2022, the patient underwent a vaginal hysterectomy with pelvic floor reconstruction under spinal anaesthesia.

One cervix, two uterine horns (bicornuate uterus), B/L normal ovaries and fallopian tubes were all discovered during surgery.

We sent a bicornuate uterus and cervix for histological analysis.



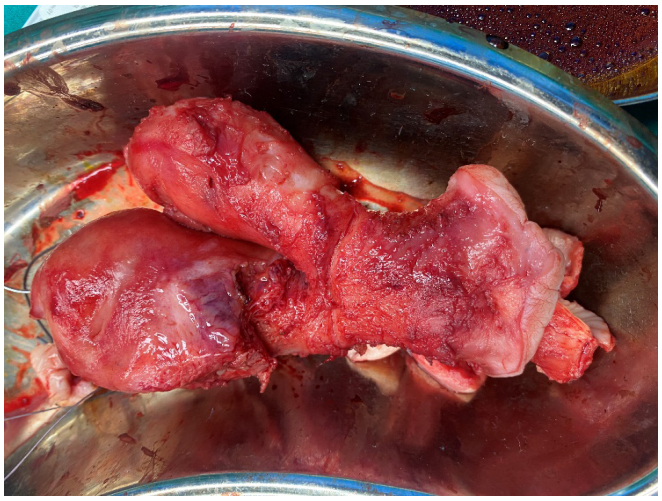


Figure 1 & 2. Postoperative specimen showing bilateral uterine horns and one cervix.

Report of the postoperative histopathology examination

Gross: The uterus is bicoruate and measures 10 X 7 X 4.5 cm.

The cervix is 3.5 cm long.

A larger head—the endometrium measures 0.4 cm by 1.6 cm in size.

The smaller head-the endometrium measures 0.3 cm by 1.3 cm.

Cervical microscopy: chronic cervicitis

Endometrial biopsy- secretory endometrium

RESULTS

The uterus, fallopian tubes, cervix, and the top two-thirds of the vagina are formed in utero by the fusion and resorption of the müllerian ducts, which are embryologic structures that exist in pairs. MDAs are uncommon diseases. It is challenging to determine the real prevalence of MDAs because many patients are asymptomatic and go misdiagnosed as a result. Between studies, there is a huge variation in the reported prevalence of MDAs. According to a comprehensive review, the prevalence of MDAs was 5.5% in a group that was not specifically chosen, 8% in women who were infertile, 12.3% in women who had experienced a miscarriage in the past, and 24.5% in women who had both a miscarriage and infertility in the past.The prevalence of specific anomalies were septated uterus (35%), bicornuate uterus (26%), arcuate uterus (18%), unicornuate uterus (10%), didelphys (8%), and agenesis (3%), according to a literature analysis on infertile and fertile women with MDAs. Negative gynaecologic and obstetric problems, like infertility, endometriosis, and miscarriage, are usually linked to MDAs. In as many as 30 to 50 percent of cases, they are also frequently accompanied by renal abnormalities. Renal agenesis, ectopic kidney, hypoplasticity, fusion, duplication, and malrotation of the kidneys are some of the common renal malformations. Therefore, it is crucial to identify both kidneys during the research. In the majority of cases, MDA diagnosis is still difficult.Hysterosalpingograms are helpful in identifying unicornuate uteri, but they are ineffective at identifying noncommunicating horns. The primary imaging technique of choice is two-dimensional (2D) ultrasonography since it is widely accessible, noninvasive, reasonably priced, and capable of revealing information about other important nonuterine structures such the ovaries, kidneys, and pelvic mass. Additionally, it can tell us which additional imaging modality or modalities should be used to make a final diagnosis. Three-dimensional (3D) reconstructed images, on the other hand, offer more thorough information and frequently eliminate the need for additional imaging. Magnetic resonance imaging has traditionally been the gold standard for identifying abnormalities of the reproductive tract.The unicornuate uterus is linked to the worst foetal survival among the other types of MDAs. Even in cases where the pregnancy is healthy, this group's obstetric performance is generally subpar. Preterm birth, intrauterine growth retardation, and malpresentation are typical obstetrical problems. According to Grimbizis et al., bicornuate uterine spontaneous abortion rates were 36% and PTB rates were 23%. Additionally, Heinonen et al. found that obstetric performance was worse the deeper the bifurcation. The prevalence of PTB was 29% in partial bicornuate uteri and 66% in full bicornuate uteri. Bicornuate uteri had a 0% and 50% breech presentation rate, and 20% and 36% of caesarean deliveries took place.

No unfavourable pregnancy outcomes, such as uterine rupture or PTB, occurred in our case. Due to the danger of uterine rupture prior to or during labour, women with bicornuate uteri are frequently advised to have a caesarean section. However, in this instance, vaginal births at term were performed successfully. Due to the well developed larger uterine horn which could capacitate the fetus, our patient had uneventful vaginal deliveries.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

REFERENCES

1. Grimbizis GF, Gordts S, Di SpiezioSardo A, Brucker S, De Angelis C, Gergolet M, et al. The ESHRE/ESGE consensus on the classification of female genital tract congenital anomalies. Hum Reprod 2013; 28: 2032-44
2. Strohbehn K, Jakary JA, Delancey JO. Pelvic organ prolapse in young women. ObstetGynecol 1997; 90: 33-6.
3. Lee SR. Robotic Single-Site® sacrocolpopexy: first report and technique using the Single-Site® wristed needle driver. Yonsei Med J 2016; 57: 1029-33
4. Hua M, Odibo AO, Longman RE, Macones GA, Roehl KA, Cahill AG. Congenital uterine anomalies and adverse pregnancy outcomes. Am J ObstetGynecol 2011; 205: 558.e1-5.
5. Grimbizis GF, Camus M, Tarlatzis BC, Bontis JN, Devroey P. Clinical implications of uterine malformations and hysteroscopic treatment results. Hum Reprod Update 2001; 7: 161-74.
6. Nishida M, Otsubo Y, Arai Y, Ichikawa R, Sakanaka M. Difference in reproductive performance between two subtypes of bicornuate uterus. Arch GynecolObstet 2016; 293: 1335- 8.
7. Gleason JL, Richter HE, Varner RE. Pelvic organ prolapse. In: Berek JS, editor. Berek and Novak's gynecology. 15th ed. Philadelphia: Wolters Kluwer; 2015. p. 912-5.

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