A Rare Case of Undeveloped Multiple Pregnancy in Uterus Didelphys

Slavchev S1, Yordanov A2*, Donkov V1, Vasileva P3 and Malkodanski I4

1Clinic of gynecology, MHAT “St. Anna”, Bulgaria
2Clinic of Gynecologic Oncology, University Hospital, Bulgaria
3Department of Obstetrics and Gynecology, Medical University, Bulgaria
4Department of Critical care, Medical University, Bulgaria

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*Corresponding author: Angel Yordanov, Clinic of Gynecologic Oncology, University Hospital ”Dr. Georgi Stranski”-Pleven, Bulgaria, Europe, Tel: 359887 671520. Email: angel.jordanov@gmail.com

Abstract

Uterus anomalies result from an abnormal development of the Mullerian ducts during embryogenesis and are a diverse group of malformations. Their incidence in the general population is around 4.3%. Uterus didelphys is a relatively rare uterus abnormality. It’s related to the reduced ability of conception, higher incidence of abortions, premature birth, abnormal fetus position and presentation and cesarean section. We present a very rare case of spontaneous and undeveloped multiple pregnancies in each of the uteruses of uterus didelphys. We diagnosed this malformation with the help of transvaginal ultrasound test. We performed vacuum aspiration separately for each of the uterine cavities.

Keywords: Uterus Didelphys; Multiple Pregnancy; Outcome

Introduction

Mullerian ducts anomalies are congenital defects of the female reproductive system and are a diverse group. Their incidence in the general population is around 4.3%, and in patients with recurrent miscarriages is up to 13% [1]. The most common anomaly is a septate uterus in 35% of cases, followed by unicornuate uterus in 25% of cases and arcuate uterus in 20%. Uterus didelphys is among the most rare uterine anomalies, with 1 of 1000-30000 women and a share of 8.2% [1]. This malformation, as the other abnormalities in the uterus development is related to various obstetrical problems - secondary sterility and premature pregnancy termination. Multiple pregnancy in case of uterus didelphys is a very rare condition.

Clinical Case

It is about a 20 year old patient, who is sent to the clinic for termination of the found undeveloping multiple pregnancy. The ambulatory gynecology examination showed two separate uteruses, and in each of them was visualised a gestational sac with one embryo, fitting 7-8 gestational week and lack of heart pulsations. The patient’s symptoms were weak genital bleeding, with no pain syndrome. That fit the clinical presentation of a missed abortion. Our gynecology examination showed the presence of a longitudinal septum of the vagina around 3 cm and to the left and right of it-two separate uterine cervixes. Transvaginal ultrasonography visualised two gestational sacs with two embryos, without heart activity, localized in two separate uterine cavities (Figure 1). The two uteruses were fitting for the amenorrhea duration - 7-8th gestational week. We diagnosed uterus didelphys with missed abortion of two embryos in two separate gestational sacs, each of them localized in a separate uterine cavity.

Figure 1: Transvaginal ultrasonography – two separate uteruses, in each of them a gestational sac is found with one embryo.
Patient has no complaints of pelvic discomfort and the anomaly was found accidentally, in relation to the pregnancy. We performed dilatation and curettage (vacuum aspiration) consecutively for both uteruses, and we measured the depth up to 8 cm and dilated up to Hegar 10.5 mm. The manipulation was not easy, since the woman hadn’t given birth and the two cervical canals were closed. Post-procedure there was fever up to 38 degrees C and pain in the lower part of the abdomen, handled with antibiotic treatment for 5 days. Currently the patient is pregnant again, in 5th lunar month, with one embryo 8 months after this case.

Discussion

Uterus didelphys is an anomaly in the development of the female reproductive system. The reason is the failed merging of the two Müllerian ducts in 8th gestational week of the embryonic development, which leads to complete duplication of the reproductive structures [2]. Usually the duplication is limited to the uterus and the cervix, but sometimes duplications of the vulva, vagina, bladder, urethra and anus can be seen. The anomaly is placed in class III of the classification of the American Fertility Society [3]. It is the presence of two uteruses, which are almost normal-sized, two uterine cervixes, and out of each of the uteruses exits one Fallopian tube [4]. In 15-20% of the cases an unisided renal agenesis may be present (usually right-sided) [5]. Accompanying anomalies are explained with the simultaneous embryonic development of the mesonephric and Müllerian ducts. In 75% of cases the vagina is also septate, which can be a reason for complications during vaginal birth or during sexual intercourse [2].

Most sources report the incidence for uterus didelphys between 0.5% and 5% of general population and it is 8.2% of the uterine anomalies [1,6-8]. Most commonly the anomaly is asymptomatic and is found accidentally, which is probably a reason for the inaccurate evaluation of the incidence. Clinically it can present itself with pelvic discomfort, dyspareunia, dysmenorrhea, hematocolpos and hematometra [9]. The possibility for conception is not impaired and happens in 74% of patients, but pregnancies do not go seamlessly - there are miscarriages in 28.9% of cases, premature birth in 28.9%, birth on term in 36.2% and birth of a living child in 56.6%. The incidence of the breech position, cesarean section delivery and fetal retardation is higher [6]. There is insufficient information about the multiple pregnancy, because of its extremely low incidence - 1 in 1 million pregnancies [10]. There are separate publications about a spontaneous multiple pregnancy in the separate uterine cavities, like in the presented case [10-15].

Diagnosing congenital anomalies of the female reproductive system begins with ultrasound examination, and with better differentiating ability of the structures are the transvaginal ultrasonography and the 3D echography. Other methods include hysterosalpingography, laparoscopy and laparotomy. MRI has the advantage of being non-invasive technology, and for finding accompanying renal anomalies.

Conclusion

A very rare case of a spontaneous pregnancy is presented, with two embryos in each of the uteruses in the case of uterus didelphys. Uterine anomalies are with higher risk of abortion. In case of a missed abortion there is a high risk of complications of the surgical procedure, due to the changed anatomy.

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