

The 13-year-old girl with unicornuate uterus with non-communicating uterine horn

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INTRODUCTION

A properly formed uterine cavity is formed as a result of joining the utero-vaginal canal of both Müller's intrarenal ducts. Uterine development ends at 22 weeks of gestation [1, 2]. In the case of a unicornuate uterus, only one of the two Müller's ducts is differentiated properly. According to the literature, the frequency of the unicornuate uterus anomaly is estimated between 0.1–2% in women [3]. In the patient described below, the defect of the uterus was classified as: Class 2/ U4a by the American Society of Fertility, the European Society of Human Reproduction and Embryology and the European Society of Gynecological Endoscopy that is: unicornuate uterus with uterine horn not communicating with the present endometrial tissue [1, 2].

Cyclical growth of the active hormonal endometrium located in the non-communicating corner of the uterus leads to accumulation of the menstrual blood inside the uterine cavity and then in the fallopian tube, causing abdominal pain [1, 3]. Initially, pain may be related to the painful menstrual cycle. Delayed diagnosis may cause the symptoms of endometriosis in the future, and in the procreation period may have an effect on obstetric failures [1–3].

A unicorned uterus with a non-communicating horn increases the risk of obstetric and gynecological complications. It should undergo surgical correction to limit processes such as ectopic pregnancies, hematometry or endometriosis [1–3].

CASE PRESENTATION

A case of a 13-year-old-girl with a unicornuate uterus with non-communicating uterine horn (class U4a in the ESHRE/ESGE classification) was reported. The patient was admitted to the Department of Pediatric and Adolescent Gy-



Figure 1. Non-communicating uterine horn with right fallopian tube

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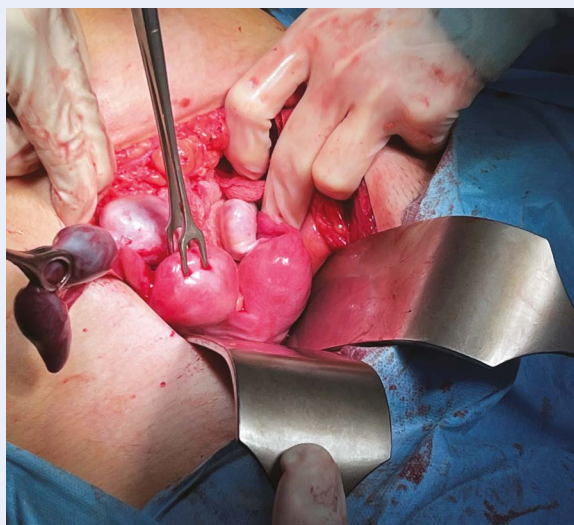


Figure 2. Laparotomy — unicornuate uterus with noncommunicating uterine horn

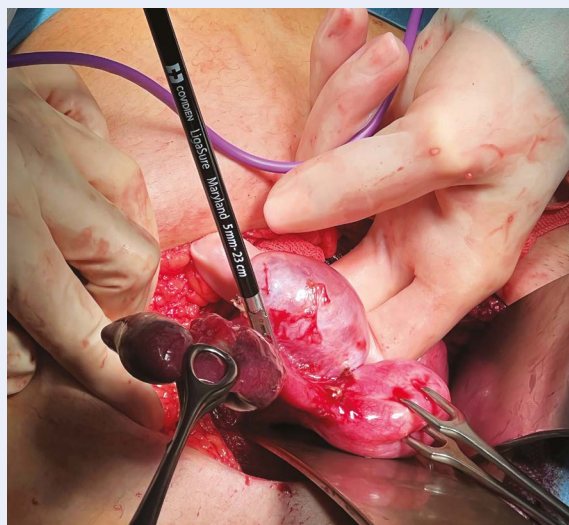


Figure 3. Laparotomy — right ovary with right fallopian tube

necology in Katowice from the Department of Pediatric Surgery due to complaints of worsening lower abdominal pain and with the suspicion of didelphys uterus. She experienced regular menstrual cycles from menarche at the age of 12.

For over 3 months, the girl had a few episodes of severe lower abdominal pain following her menses. A physical examination was unremarkable with normal secondary sexual characteristics.

During the hospitalization, transabdominal ultrasonography of the pelvis revealed a didelphys uterus, right sized at 45 x 33 mm, uterine cavity measured as 18 mm filled with blood similar to hematometra, left uterus 33 x 24 mm, endometrium measuring about 8 mm. Pelvic magnetic resonance imaging (MRI) revealed a normal uterus on the left side with a properly developed vagina, the uterine cavity on the right side was dilated measuring 18 mm, vagina on the right side was not visible. The inflammatory markers were in the normal range.

Laparotomy showed a unicornuate uterus with a normal cervix with a non-communicating uterine horn on the right side, the ampulla section of the fallopian tube was enlarged and distended with bloody fluid, the right ovary was the proper size. The girl was treated with surgical resection of the right non-communicating uterine horn and fallopian tube. The left tube and both ovaries were preserved. After the procedure, the patient was comfortable during the postoperative period.

A further follow-up of the patient was recommended.

CONCLUSIONS

In the diagnosis of Müller duct anomalies, it is important that the patient undergoes appropriate imaging diagnostics. A 2D, 3D ultrasound, MRI or hysterosalpingography should be considered [1, 3]. Patients with a unicornuate uterus after resection of the non-communicating horn of the uterus with appendages have a worse obstetric prognosis due to poorer blood supply to the reproductive organ and limited possibilities of uterine enlargement with growth of the fetus. This may result in miscarriage, prematurity, intrauterine growth restriction, ectopic pregnancies, isthmus-cervical failure or uterine rupture or intrauterine death [1, 2].

Conflict of interest

All authors declare no conflict of interest.

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