



EDİTÖRE MEKTUP/LETTER TO THE EDITOR

Coexisting unicornuate uterus and pelvic ectopic kidney: a rare case

Unikornu uterus ve pelvik ektopik böbrek birlikteliği: nadir görülen bir olgu

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Dear Editor,

Normally, fusion of the müllerian ducts occurs between the 6th and 11th weeks of gestation to form the uterus, fallopian tubes, cervix, and proximal two-thirds of the vagina. But, failure of fusion or normal development or incomplete medial wall resorption of the müllerian ducts can result in a broad and complex spectrum of congenital abnormalities termed müllerian duct anomalies (MDAs). In literature, the prevalence of MDA varies widely, ranging from 1%–5% in the general population to 13%–25% among women with recurrent pregnancy loss¹.

Although some types of MDAs give any symptoms for long time, patients with MDA are known to have higher incidences of infertility, repeated first trimester spontaneous abortions, fetal intra-uterine growth retardation, fetal malposition, preterm labour and retained placenta². MDAs are also commonly associated with renal anomalies, with a reported prevalence of 30%–50%, including renal agenesis (most commonly unilateral agenesis), ectopia, hypoplasia, fusion, malrotation, and duplication. Therefore, diagnosis of MDAs is clinically important³.

Among MDAs, unicornuate uterus that results from complete or near-complete arrested development of one of the ducts constitutes approximately 20% of all cases⁴. As compared to other types, unicornuate uterus is more commonly associated with renal anomalies. It has been reported that renal anomalies are seen in roughly 40% of unicornuate patients. Renal agenesis is the most commonly reported anomaly, occurring in 67% of cases³.

We have reported coexistence of unicornuate uterus and pelvic ectopic kidney as a rare case. A 48 year-old nulliparous woman who was referred to our center suffered from menometrorrhagia, dyspareunia, and chronic pelvic pain, which had worsened over the previous 6 months. She had taken several progestin regimens and levonorgestrel intrauterine system for three years with persistence of abnormally uterine bleeding. Besides being diagnosed and adequately followed up for left pelvic kidney, her past histories were unremarkable. On physical examination, she was in no apparent distress with normal vital signs. A mild tenderness to palpation was elicited in the lower abdomen without rebound.

Pelvic examination demonstrated a normal 12-week size anteverted but nontender uterus and mild-to-moderately tender left adnexa. Her laboratory tests were within normal limits. A transvaginal ultrasound demonstrated a 15x12-cm heterogenous myomatous uterus containing so many myoma some of which supressing the endometrial cavity. A normal right ovary and left pelvic kidney was identified but left ovary could not be imaged. Our diagnosis was treatment resistance abnormal uterine bleeding due to myoma uteri. We offered to perform an operative hysteroscopy instead of a total abdominal hysterectomy and bilateral salpingoopherectomy for the patient; however, she chose the latter. Preoperatively, PAP smear and endometrial biopsy were performed to rule out malignancy, which resulted in normal cytology and proliferative endometrium. During laparotomy, enlarged uterus due to multiple myoma with normal right adnexa was observed. But left ovary and tuba

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were absent. At left iliac fossa ectopic kidney was seen (Figure 1). Intraoperatively it was consulted to the urology and confirmed that it was ectopic-located kidney and her ureter course was anatomically normal. Abdominal hysterectomy and right sided salpingo-oophorectomy was performed. In order to rule out an ectopic ovary, serum FSH and E2 levels were measured, postoperatively. Serum FSH and E2 levels were 65 IU and 18 pg/dL,

respectively, confirming that no ectopic ovarian tissue was present. Patient was discharged without any problem two days after the operation. Pathologic examination of the uterus and right ovary indicated a unicornuate uterus having so many subserous, intramural and submucous myoma and a normal cervix, as well as a proliferative endometrium together with a normal right ovary and tuba.



Figure 1. Intraoperative image of unicornuate uterus, right ovary and tuba. Near the retractor pelvic ectopic kidney is seen.

Unicornuate uterus is a kind of mullerian anomalies. Most patients remain asymptomatic unless the discovery is made as an incidental finding, as in our case. Ultrasound, hysteroscopy and magnetic resonance imaging can be used in diagnosis of unicornuate uterus. The view of laterally deviated, banana shaped hemiuterus helps to diagnosis unicornuate uterus. Ultrasound diagnosis is difficult in most cases. Cavity communicated or non-

communicated rudimentary horn is accompanied to unicornuate uterus in some cases. Complications associated with an isolated unicornuate uterus are usually related to the pregnancy outcome. These include prematurity, first- and second-trimester abortions, and intrauterine fetal demise⁵. The presence and location of the kidney in women with Mullerian anomalies must be determined. According to previous study, the unicornuate uterus is the most

common müllerian duct anomaly class that is associated with renal anomalies, occurring in roughly 40.5%⁵. The most common renal abnormality is renal agenesis, with reported numbers as high as 67%¹. Other less common renal anomalies are ectopic pelvic kidneys, horseshoe kidneys, malrotated kidneys, a duplicated renal pelvis, and a unilateral medullary sponge kidney⁵. Renal ectopy is the definition of being mature kidney place out of the renal fossa⁶. Renal ectopy is a result of not migration of fetal persistant kidney's to highest retroperitoneal area⁷. Incidence approximately 1/2000-3000. Ectopic kidney can be smaller and as a result of fetal lobulation be different in shape than normal kidney. Ureter goes into bladder in normal place. It occurs in both kidney and sex at same rate⁸. Renal ectopies can be seen at upper abdominal, lower abdominal, iliac, pelvic and opposite localization. The most frequent place is pelvis at a %55 incidence⁹. Some other abnormalities may be associated with ectopic kidneys. The contralateral kidney is abnormal in as many as 50% of patients. Contralateral renal agenesis occurs in 10%. Additional malformations of the cardiovascular, respiratory, genital or skeletal systems are common. Genital malformations in females including duplication of the vagina, bicornuate uterus and hypoplasia or agenesis of the uterus or vagina may cause problems during menstruation, conception, and pregnancy. The most common genital anomalies in males are hypospadias and cryptorchidism¹⁰. Ectopic kidney should also not be missed as a differential diagnosis in women who present with adnexal mass by the gynecologist.

In conclusion, woman with müllerian duct anomalies must be investigated about renal anomalies. In addition, it should be kept in mind that patient with the unicornuate uterus may have

also pelvic ectopic kidney although it is a rare association.

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