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CASE REPORT

Unicornuate Uterus with Rudimentary Horn and Non-Communicating Functional Endometrium: A Case Report

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Abstract

Mullerian anomalies are congenital disorders affecting 1 to 10% of population. Normally during fetal development, two paired mullerian ducts develop into female reproductive tract including fallopian tubes, uterus, cervix and upper two thirds of vagina. When one mullerian duct fails to develop or is under developed, unicornuate uterus is formed. When the contralateral duct undergoes some development, rudimentary horn is formed. 70-85% of patients also present with unilateral renal agenesis**.** A 15-years-old adolescent female presented with dysmenorrhea since menarche. Abdominal examination revealed an enlarged uterus. Ultrasonography showed unicornuate uterus along with absence of a unilateral kidney. We received a rudimentary horn along with a large hemorrhagic fluid filled uniloculated cyst with another small cyst. On microscopic examination, section studied from rudimentary horn has features of proliferative endometrium. Section studied from cyst wall is lined by cuboidal epithelium. Patients having mullerian duct anomalies usually present with dysmenorrhea and chronic pelvic pain. Unicornuate uterus with rudimentary horn is the least frequent form. We present a congenital anomaly rather rare among the population- unicornuate uterus with rudimentary horn which is a cause for variety of symptoms.

Keywords: Unicornuate uterus; Rudimentary horn; Functional endometrium

Introduction

Mullerian anomalies are congenital disorders affecting 1 to 10% of population[(1)]. Congenital anomalies of Mullerian duct arises as a result of non-fusion or non-development of Mullerian ducts or due to failed resorption of uterine septum. This can be cause of variety of symptoms like pelvic pain, dysmenorrhea, menorrhagia and recurrent pregnancy loss[(2)]. There is also an association between these and kidney abnormalities as urinary system development is closely related[(2)]. When one Mullerian duct fails to develop or is under developed, unicornuate uterus is formed. When the contralateral duct undergoes some development, rudimentary horn is formed. 70-85% of patients also present with unilateral renal agenesis. Unicornuate uterus can be associated with communicating or non-communicating rudimentary horn with functional or non-functional endometrium[(2)].

Case Report

A 15-years-old adolescent female presented with dysmenorrhea since menarche. Abdominal examination revealed an enlarged uterus. Ultrasonography showed an unicornuate uterus along with absence of a unilateral kidney. We received a rudimentary horn along with a large hemorrhagic fluid filled uniloculated cyst with another small cyst (Figure 1). On microscopic examination, section studied from rudimentary horn has features of proliferative endometrium (figure 2). Section studied from cyst wall was lined by cuboidal epithelium.

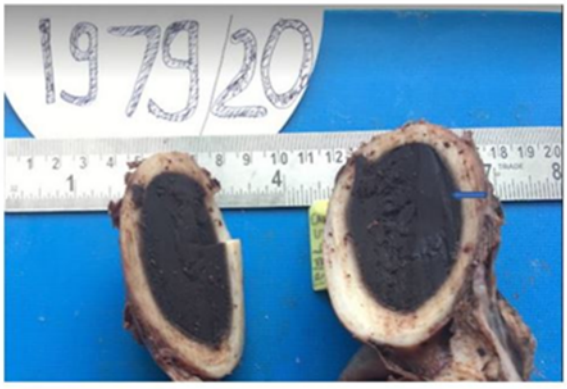

Fig 1. Gross-Uteruswith Rudimentary horn filled with Hemorrhagic material

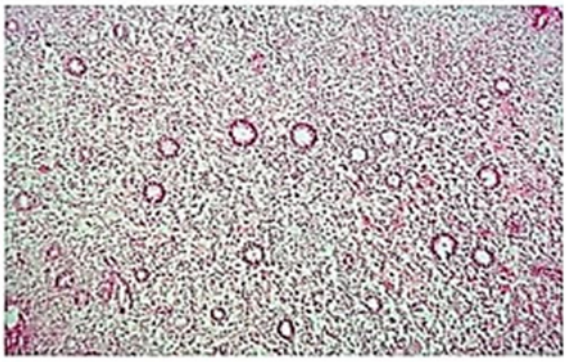

Fig 2. Microscopyof rudimentary horn-small endometrial glands lined by pseudostratified columnar epithelium

Discussion

In embryonal life, Mullerian duct first identified at 5-6 weeks gestation as they begin to grow caudally towards urogenital sinus[(1)]. Patients having mullerian duct anomalies usually realize it when they present with dysmenorrhea and chronic pelvic pain due to hematometra. When recognized, surgical removal of rudimentary horn is preferred even if the horn is non-communicating to prevent the symptoms and reduce chances of future pregnancy complications. Unicornuate uterus with rudimentary horn is the least frequent form (2.4-13% of all Mullerian anomalies)[(3)]. Both genital system and urinary system develop from intermediate mesoderm. Any developmental anomaly at the embryonal stage can lead to urinary system anomaly most commonly contralateral renal agenesis[(2)].

Conclusion

We present a congenital anomaly rather rare among the population-unicornuate uterus with rudimentary horn along with unilateral renal agenesis which is a cause for variety of symptoms. This case also highlights the importance of considering the diagnosis of Mullerian duct anomalies in patients with a history of other anomalies and with history of secondary dysmenorrhea.

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