Case Report

A delayed therapy of dysmenorrhea due to noncommunicating rudimentary horn and unicornuate uterus: Case report and review of the literature

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Abstract

Although asymptomatic cases naturally occur, congenital mullerian abnormalities can present with infertility, menstrual irregularity and recurrent pregnancy loss. Women with normal reproductive outcomes and recurrent pregnancy loss exhibit approximately 2-4% and 5-10% incidence of various congenital mullerian abnormalities. Following septate uterus, bicornuate uterus and arcuate uterus, unicornuate uterus is the fourth most frequent congenital uterine abnormality seen in a combined population of infertile and fertile women. Unicornuate uterus with a non-communicating functional rudimentary horn is a type of mullerian anomaly and is a rare cause of dysmenorrhea. Here, we presented a case of this kind of abnormality and discussed the management strategies in the light of the literature.

Key Words:
Dysmenorrhea, mullerian anomaly, unicornuate uterus, rudimentary horn

Introduction

Dysmenorrhea is defined as difficult menstrual flow or painful menstruation. Dysmenorrhea is a common complaint of women especially adolescent girls are affected. The prevalence of dysmenorrhea is about 25% which its possible cause is the spasmic contraction of uterus [1]. It can be divided in to 2 broad categories; primary (occurring in the absence of pelvic pathology) and secondary (resulting from organic diseases). Pharmacotherapy especially non-steroidal anti inflammatory drugs (NSAID) are the most effective treatment choices in primary dysmenorrhea [2]. There are some organic causes of secondary dysmenorrhea. One of them is the congenital mullerian malformation of the uterus as bicornuate uterus or subseptate uterus [3]. Abnormal fusion of the mullerian ducts results from anatomical changes in the female genital system. Unicornuate uterus with a rudimentary horn is a rare type of mullerian duct malformation. The frequency of uterine congenital anomalies is 1/200 to 1/600 and 1/100000 for rudimentary horn [4]. A non-communicating rudimentary horn usually has inactive endometrium but can be associated with complications from menarche to menopause such as endometriosis, primary infertility, hematometra, anomalies of the urinary system and obstetrical problems such as malpresentation, habitual abortus, ectopic pregnancies and premature birth [5]. A middle aged women who has severe and intractible dysmenorrhea with noncommunicating rudimentary horn is reported here and discussed in the light of the literature.

Case Presentation

A 37-year-old woman with gravida:2 who had 2 vaginal deliveries attended to gynecology department of our hospital with complaints of dysmenorrhea, severe cyclic pelvic pain from menarche. The pelvic pain was
typically felt over the right lower abdomen and used to start before the menstrual cycle and lasted during menstrual cycle. She used various analgesics for long years. On examination, no abnormality was detected on systemic examination. Transvaginal ultrasonography showed us unicornuate uterus with non-communicating rudimentary horn. In the cavity of rudimentary horn, active endometrium echogenicity was observed. To confirm the diagnosis, magnetic resonance imaging (MRI) was performed. Intravenous pyelography also confirmed right renal agenesis.

Laparoscopy was planned but because of the adhesions between intestines and rudimentary horn, laparotomy was performed for not to cause intestinal injury. No endometriosis was observed in the abdomen. On laparotomy, the right–sided rudimentary horn was excised. Cystoscopy was performed by urology doctor which revealed non-visualization of the right ureteric orifice with normal left ureteric orifice and bladder mucosa. The postoperative period was uneventful and the patient was discharged on the 2nd day of operation. Histopathologic evaluation of the specimen revealed a rudimentary horn with active endometrial and myometrial tissue (Figure 3). The dysmenorrhea complaint was not observed during the follow-up period.

**Discussion**

Unicornuate uterus with non-communicating rudimentary horn is rare form of mullerian abnormalities which is also an important cause of dysmenorrhea. It causes cyclic pain due to intracavitary retention of menstrual effluent and retrograde menstrual flow. If there was no relationship between rudimentary horn and main functional endometrial cavity, hematometra and maybe hematosalpinx would be observed [6]. Other mechanism of dysmenorrhea in unicornuate uterus with rudimentary horn is the endometriosis. These patients usually attend to gynecology or emergency departments with severe pain or pelvic mass [7]. Agarwal et al. reported a 18-year-old woman who developed endometriosis and had severe pelvic pain. Generally it is considered to become the adolescent girl’s pathology but here we presented a 37-year-old woman with this abnormality with two vaginal deliveries. Borah et al. presented again an adolescent girl with primary dysmenorrhea with similar mullerian abnormality [8]. The management of these two cases were excision of the rudimentary horn. The women with primary dysmenorrhea are not evaluated in detail during routine examination [2,8]. But a good transvaginal ultrasonography is enough for diagnosis but pelvic magnetic resonance imaging (MRI) is good for confirmation of the diagnosis. This mullerian abnormality may be related
with infertility, recurrent pregnancy loss, preterm delivery and ectopic pregnancy. There may be coexisting urinary tract abnormalities like unilateral renal agenesis [8,9]. In this case drug resistant primary dysmenorrhea and unilateral renal agenesis were observed. Two term uneventful pregnancies were delivered vaginally. In the literature the laparoscopic excision of the rudimentary horn is offered for possible severe complications [3,10]. But as in our case severe adhesions can make laparoscopy difficult. If a woman complains about primary dysmenorrhea from menarche and presents with unilateral pelvic mass a mullerian anomaly should be remembered and should be evaluated carefully.

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Declaration of Interest
None

References