Case Report

Laparoscopic management of pelvic endometriosis due to non communicating rudimentary horn of uterus

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Abstract

Unicornuate uterus with a rudimentary horn is a rare mullerian duct anamoly of female genital tract. It is responsible for many obstetric and gynecological complications during reproductive life of a woman. We present a case of pelvic endometriosis due to non communicating but functional rudimentary horn of a uterus in a multiparous woman. She was treated by laparoscopic excision of endometriotic cysts and removal of rudimentary horn. Patient had short hospital stay and smooth post operative recovery.

Keywords: Pelvic Endometriosis, Chocolate Cyst of ovary, Non-communicating horn of uterus, Laparoscopic excision of uterine horn

1. Introduction

Unicornuate uterus with a rudimentary horn is a rare congenital malformation of the female genital tract. It is responsible for many obstetric and gynecological problems during reproductive life of a woman. The frequency of this pathology is approximately 1/100 000.¹ A rudimentary horn usually develops following incomplete development of one of the mullerian ducts. These patients present with dysmenorrhea, dyspareunia, and chronic pelvic pain because of endometriosis and rarely with acute abdominal symptoms following distention and torsion of the noncommunicating rudimentary horn. This anamoly is associated with obstetrical complications like ectopic pregnancy, malpresentations and need increased operative interventions.² ³

2. Case Report

Twenty nine year old, para 2 with living 2 issues having married life of 10 years, presented to Gynecology outpatient department with history of severe progressive spasmodic dysmenorrhea of two years duration. There was no other menstrual complains, no dyspareunia or bowel and bladder disturbances. She had received oral antispasodic medication in the past. Her clinical pelvic examination revealed a mass in broad ligament of 6 to 8 cms in size, firm to hard in consistency, adherant to uterus, extending to pouch of Douglas. Uterus was normal in size with restricted mobility. There
was tenderness over the mass on bimanual examination. Findings were confirmed by per rectal examination. Possibility of either tubo-ovarian mass, ovarian germ cell tumour or subserous fibroid was kept. Pelvic ultrasound revealed 7.7 cm × 5.9 cm multiloculated, multiseptate complex mass in right adnexal region. Right side ovary was not seen separate from the mass, suggestive of complex ovarian cyst or neoplastic ovarian mass. Her hemoglobin was 13.5 grams %. Serological tests for sexually transmitted diseases were normal. Serum CA-125 level was 78.66 u/ml. Her x-ray chest was normal.

Patient was posted for diagnostic laparoscopy sos laparotomy under general anesthesia. Laparoscopic examination revealed normal size uterus with a right sided rudimentary horn of 3cms size. There was a large mass in the region of right adnexa and broad ligament. Right tube and ovary could not be seen separately. Mass was covered by peritoneum and omentum. Left sided ovary and fallopian tube were normal. On further exploration and dissection through laparoscope, a thick walled chocolate cyst of right ovary with multiple endometriotic cysts in the pelvic peritoneum and pouch of Douglas, extending to recto vaginal septum were seen. (Fig.1) All endometriotic cysts were removed with the help of bipolar and harmonic scalpel. There was very minimal bleeding while performing pelvic dissection and excision of endometriotic tissues. In view of the functional rudimentary horn, diagnostic hysterectomy was performed. It revealed absence of right tubal ostia, suggestive of non communicating right horn of the uterus. Decision of excision of uterine horn was taken. (Fig 2,3,4) Uterine horn was excised by bipoar and harmonic cautery. Uterine horn was removed intact through port site after enlarging the incision. (Fig.5) Cut section of the uterine horn showed small cavity with thin endometrial lining. (Fig.6) Patient was discharged after 48 hours of surgery. She was advised to take tablet Danazole ,600 mg per day for minimum 6 months. Histopathology of the cyst wall confirmed the diagnosis of endometriosis. Histopathology of uterine horn confirmed the diagnosis of its functional endometrim.
3. Discussion

Unicornuate uterus with a rudimentary horn is a rare type of mullerian duct malformation representing only 1% to 3% of congenital mullerian anomalies.\textsuperscript{4,5} It results from the defective fusion of the malformed duct with the contra-lateral duct.\textsuperscript{6} The pathology is classified into 4 groups by the American Society of Reproductive Medicine (ASRM) as unicornuate uterus with communicating rudimentary horn, unicornuate uterus with noncommunicating rudimentary horn, isolated unicornuate uterus, and noncavitated unicornuate uterus with noncommunicating rudimentary horn.\textsuperscript{3} A fibrous or fibro-muscular band usually connects the horns, but in 80 - 90% of cases there is no communication. This condition is often asymptomatic due to the lack of functional endometrium.\textsuperscript{7} However, when the horn is lined with functional endometrium,\textsuperscript{8} the resulting obstructed menstrual flow may cause severe cyclic pelvic pain shortly after menarche. Retrograde menstruation is thought to initiate and potentiate endometriosis in women with non-communicating uterine anomalies. Endometriosis seen in these cases supports the retrograde menstruation theory. The pain of endometriosis in these cases is usually severe and results in severe dysmenorrhea, chronic pelvic pain, and dyspareunia.\textsuperscript{9} Surgical removal of the noncommunicating horn is commonly performed if it is thought to contain functional endometrium, to prevent endometriosis and pregnancy complications. The marked lower abdominal and pelvic pain usually bring patients for imaging in the form of an ultrasound, computed tomographic scan, or magnetic resonance imaging, which demonstrates a pelvic mass. Before the advent of laparoscopy, the traditional surgical approach to treatment of this problem has been through laparotomy and removal of the dilated noncommunicating horn. These cases are now treated successfully by laparoscopy.\textsuperscript{1}

Present case report may be of interest to laparo-endoscopic surgeons due to the rarity of the condition and the use of laparoscopy for easy removal of the abnormal uterine horn. In this case, a laparoscopic approach was used to excise the rudimentary horn. One other case of successful primary laparoscopic removal of a noncommunicating uterine horn in an adolescent (13-year-old) has been reported.\textsuperscript{10} In an additional reported case in a 15-year-old, a distended uterine horn was drained during a diagnostic laparoscopy and then later successfully removed at a subsequent laparoscopy.\textsuperscript{11} A number of cases of successful laparoscopic removal of noncommunicating uterine horns have been reported in adults, and this has been suggested to be the preferred approach.\textsuperscript{11, 12} There has always been diagnostic dilemma in the mind of gynecologists while dealing with cases of adnexal masses in women of reproductive age group. Ultrasonographic findings are at times misleading the clinician as also the Ca -125 values. Diagnostic laparoscopy and examination under anesthesia are always helpful in reaching the correct diagnosis.

4. Conclusion

Non communicating rudimentary horn of the uterus is a rare cause of pelvic endometriosis. Removal of endometriotic cysts and excision of the uterine horn can be easily performed via laparoscopic route. It gives benefit to the patient of shorter hospital stay, significantly reduced postoperative morbidity and speedy recovery.

References