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Case Report

Unicornuate uterus with functional non communicating rudimentary horn: a refractory cause of dysmenorrhea

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ABSTRACT

Mullerian duct anomalies are rare. Unicornuate uterus with a non-communicating rudimentary horn is a rare type of mullerian duct anomaly which occurs due to defective fusion of malformed duct with contralateral duct. The incidence is approximately 1:100000. Patient usually remain asymptomatic due to the absence of functional endometrium in most of the cases. If the rudimentary uterine horn has an endometrium lined uterine cavity and doesn't communicate externally then the signs and symptoms of obstructed menstruation appears, as soon as menarche begins. It will be associated with severe dysmenorrhoea and hematometra. Other complications may be abdominal lump, chronic pelvic pain, infertility, endometriosis, adenomyosis and ectopic pregnancy in rudimentary horn. Authors are presenting a case of refractory dysmenorrhea with lump abdomen in a patient with unicornuate uterus with functional non communicating horn. In a patient with refractory dysmenorrhea mullerian duct anomaly should be kept as differential diagnosis.

Keywords: Dysmenorrhoea, Functional endometrium, Hematometra, Mullerian duct anomalies, Non-communicating rudimentary horn, Unicornuate uterus

INTRODUCTION

The incidence of mullerian duct anomalies varies depending on whether one considers the general population or women being investigated for infertility. The incidence is 3-4% in fertile and infertile women, 5-10% in women with recurrent miscarriages, and greater than 25% in women with late miscarriages and preterm deliveries.¹ Unicornuate uterus with a non-communicating rudimentary horn is a rare type of mullerian duct anomaly which occurs due to defective fusion of malformed duct with contralateral duct. The incidence is approximately 1:100000.² A close embryologic relation exists between the development of the urinary and reproductive organs.³ Renal tract malformations may be simultaneously present in women

with mullerian duct malformations. Patient usually remain asymptomatic due to the absence of functional endometrium in most of the cases. If the rudimentary uterine horn has an endometrium lined uterine cavity and doesn't communicate externally then the signs and symptoms of obstructed menstruation appears, as soon as menarche begins. It will be associated with severe dysmenorrhoea and hematometra. Other complications may be abdominal lump, chronic pelvic pain, infertility, endometriosis, adenomyosis and ectopic pregnancy in rudimentary horn.

CASE REPORT

Authors reported a case of 22-year-old married PIL1 admitted to SHKBM hospital of Jhalawar medical college

with chief complaints of cyclic dysmenorrhoea since menarche which has been gradually increased in intensity and lump abdomen for 6 months. She was operated 5 years ago for acute pelvic pain along with dysmenorrhoea and lump abdomen. She had no record of the operation but on it seemed to be left adnexa removal according to her history. It might be endometrioma formed due to retrograde flow of menstruation or ovarian cyst or hematosalpinx. She attained menarche at 13 years of age, cycles 3-4/28-30 days, regular with normal flow. Her LMP was 1-6-19. She had visited many doctors for her symptoms but did not get any cure.

On general physical examination, no gross anomaly seen and her vitals were normal.

On per abdominal examination, vertical midline scar seen along with a lump of around 24 weeks arising from pelvis, deviating slightly to the left side of abdomen. Lump was firm in consistency with restricted mobility.

On per speculum examination, cervix and vagina was healthy, os was single, deviated to right side. Bulge was present on left and posterior fornix.

Per vaginal examination revealed uterus of 24-week size deviated to the left side with mobility restricted and movement of cervix was transmitting to lump, left and posterior fornix full.

Laboratory values

Hb - 10 gm, HCT- 34.5%, WBC - $6.25 \times 10^3/L$, platelets - $256 \times 10^3/L$, UPT- negative.

Her abdominal sonography was suggestive of enlarged uterus with? pyometra? hematometra, right ovary normal, left ovary not visualized, left kidney not visualized.

Her MSCT scan was suggested grossly distended endometrial cavity with high density fluid in endometrial cavity suggestive of hematocolpos and absent left kidney. Both abdominal sonography and MSCT scan were not correlating with patient's history, as she delivered one baby normally one and half year back and has been having normal menstrual flow every month with severe dysmenorrhoea so authors made a clinical diagnosis of unicornuate uterus with functional non communicating rudimentary horn, in which her menstrual blood was collecting leading to haematometra and lump abdomen and cause of cyclic dysmenorrhoea.

Decision of exploratory laparotomy was taken after explaining the condition to patient and her attendant.

On exploratory laparotomy, the unicornuate right unicornuate uterus with a non-communicating distended left rudimentary horn of around 25×10 cm seen.

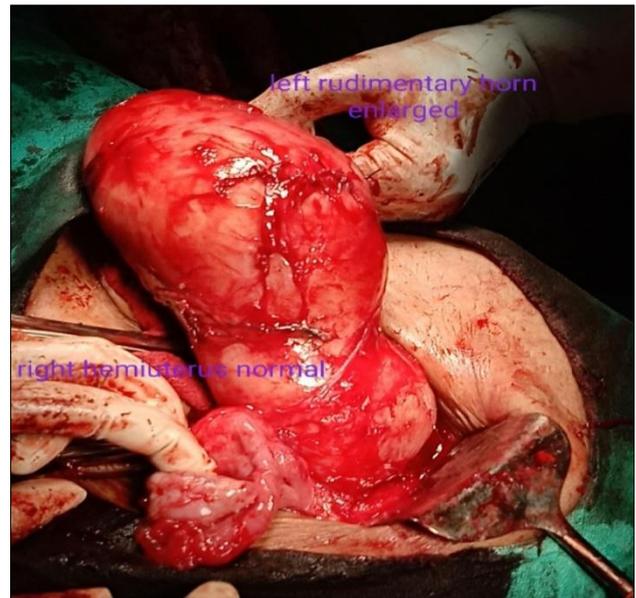


Figure 1: Right side normal hemi uterus with adenexa and left side rudimentary horn with haematometra.

Left sided adnexa was absent, consistent with history of salpingo-oophorectomy. Around 700 ml of altered thick blood, brown in color was collected in that rudimentary horn. The right uterine horn was normal, with normal right tube, ovary and round ligament. Her left rudimentary horn was removed. Right unicornuate uterus left intact so she can conceive in future.

Cut section of the left hemi-uterus showed that the cavity was filled with dark coloured fluid (old blood).



Figure 2: Cut section of rudimentary horn.

Histologically study confirmed- hematometra.

Patient withstood procedure well and had an uneventful post-operative period.

DISCUSSION

American fertility society has divided mullerian anomalies into several classes. Unicornuate uterus with non-communicating rudimentary horn are categorized as

class II b4. Most rudimentary horns are non-communicating (90%).

A close embryologic relation exists between the development of the urinary and reproductive organs. Hence renal tract defects are likely to be found in women with müllerian duct malformations. Congenital absence of one kidney has been the most common urologic anomaly associated with obstructive uterovaginal anomalies. Women with one kidney and a malformed uterus have more than twice the risk of the development of gestational hypertension and late onset preeclampsia compared with those with a similar uterine anomaly but two normal kidneys.⁵

The uterine anomaly of this patient was missed initially, at the time of previous laparotomy which led to obstruction of retrograde flow of menstruation. Her dysmenorrhoea and hematometra exaggerated.

MRI is the gold standard for diagnosis of müllerian abnormalities.

CONCLUSION

The diagnosis and management of uterine anomalies are often a challenge for the gynaecologist. A high index of suspicion for the presence of uterine anomaly arises when patient complaint of refractory cyclical pelvic pain and adequate workup is mandatory to make a correct diagnosis. The main aim of surgical excision of symptomatic functional non communicating horn is pain relief. Laparotomy is the standard approach for such cases, but due to advantages of shorter hospital stay, small incisions and less post-operative pain, laparoscopy has become the first choice. Simultaneous evaluation of

renal system is mandatory due to high incidence of associated urological anomalies.

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