Case Report

Rare Case of Bladder Endometriosis Imitating Bladder Growth in a Pregnant Female : A diagnostic Challenge

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Abstract

Background: Endometriosis is deposition of endometrial tissue outside the uterine cavity. Isolated Bladder endometriosis in absence of uterine endometriosis is a less frequent event .The presence of pregnancy in these situations is even rarer. The clinical presentation may be lack of any symptoms, dysmennorhea, dyspareunia, excessive or irregular menstrual bleeding, lower urinary tract symptoms, hematuria or recurrent urinary tract infections. We present a unique case of bladder endometriosis in a 10 weeks pregnant female mimicking bladder growth that underwent transurethral resection with histopathology confirming the diagnosis of endometriosis.

Keywords: Endometriosis, Vesical Endometriosis, Bladder Growth, Pregnancy

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Introduction

Endometriosis is a disease of women in their reproductive age with peak incidence between 30 and 45 years of age. The involvement of urinary tract is less than 1 % and rare.[1,2,3] Among these cases bladder is the most common site. Endometriosis is also a common cause of infertility in women. Complications with pregnancy includes tubal pregnancy, early miscarriage, placenta previa and post-partum heamorrhage.[4]

Vesical Endometriosis in presence of pregnancy is very rare. It is a diagnostic challenge for clinicians as on Ultrasound it may imitate bladder growth and option of CT scan for work up is not suitable in pregnancy. Trans vaginal Ultrasound is superior to abdominal ultrasound in diagnostic accuracy. MRI also provides a good alternative in these situations.[10,11] Use of Flexible cystoscopy under local anesthesia is also a viable option to narrow down the diagnosis but that also do not provides option of biopsy and histopathology. The accurate diagnosis can only be made through Cystoscopy with biopsy followed by Histopathology which is pathognomonic.[5] This can only be achieved under regional or general anesthesia carrying a risk of termination of pregnancy. We present a unique case of vesical endometriosis mimicking bladder growth in presence of pregnancy having undergone transurethral resection and biopsy with histopathology confirming the diagnosis.[5]

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Case Report:

A 23 years old female presented to us in Urology outpatient with 8-10 weeks of pregnancy having being referred by radiologist due to suspicion of incidental bladder growth on abdominal ultrasound (Figure 1) . She had no history of hematuria or other urinary symptoms. She previously had two uneventful pregnancies in last four years done through cesarean section. She denied having any menstrual irregularities, dyspareunia or any other gynaecological complains however she did admit having complains of dysmenorrhea few years back in her teenage which settled spontaneously. Physical examination did not reveal anything unexpected with presence of caesarean scar from previous pregnancies. We organized a transvaginal ultrasound which showed single alive intrauterine pregnancy of 8 weeks and 3 days with no signs of uterine endometriosis .

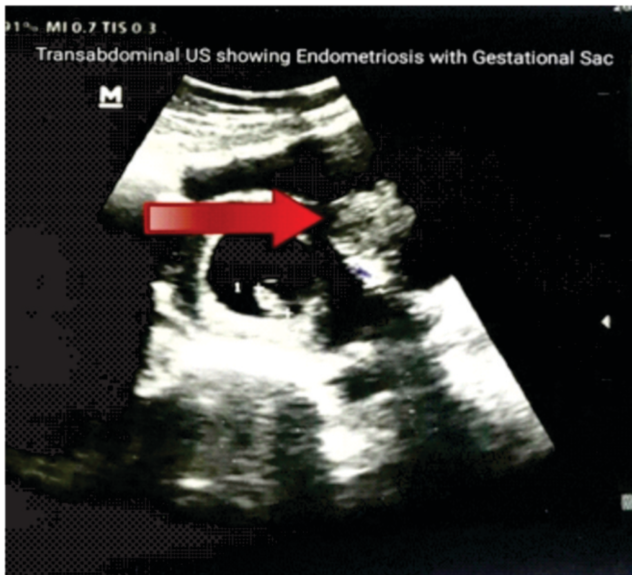

Fig-1: *Transabdominal Ultrasound of patient showing Endometriosis and gestational Sac with Embryo*

She also underwent an MRI which showed well defined abnormal signal intensity area within the anterior cul de sac at the site of uterine scar that seemed to be inseparable from the serosa and adherent to vesical base causing its elevation. Urinary bladder itself was said to be normal on MRI with no intraluminal mass lesion. (Fig-2)

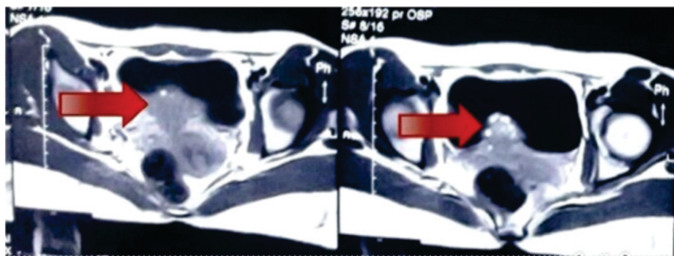

Fig-2: *MRI of patient showing Vesical Endometriosis*

She was consented for cystoscopy and proceed for transurethral resection of mass involving risk of termination of pregnancy. Spinal anesthesia was opted to minimize the risk of termination of pregnancy and Bipolar resection technique was adopted to minimize the circuit of current during transurethral resection. Single dose of intravenous ceftriaxone was given before the resection only .A well-defined solid looking mass was seen on left poster lateral wall of bladder (Figure 3). Complete resection was achieved using bipolar technique and biopsy was sent for histopathology. It is worth mentioning that per operative bleeding was minimal with no need of bladder irrigation after the surgery as is normally seen with bladder growths.

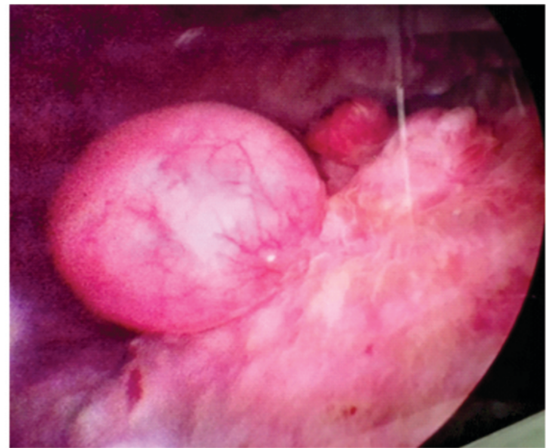

Fig-3: *Cystoscopy showing Vesical endometriosis imitating Bladder Growth*

The histopathology showed endometrial gland and stroma predominantly in muscularis propria with focal extension into the mucosa and pseudodecidual changes in endometrial stroma. No atypia or atypical mitosis was seen. No malignant cells of bladder origin were seen. (Fig.4-5)

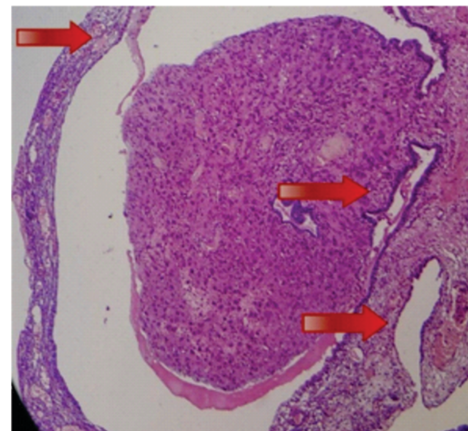

Fig-4: *Histopathology Showing Endometriosis*

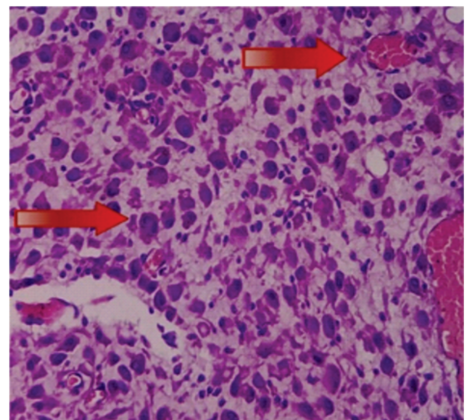

Fig-5: *Histopathology Showing Endometriosis*

The patient was re-evaluated by ultrasound for fetal well being in same admission which showed alive intrauterine pregnancy with normal fetal cardiac activity. The patient was seen by obstetrician with satisfactory evaluation. The patient was discharged home and was kept in follow up for pregnancy.

Discussion

With vesical endometriosis being uncommon[1,2,6] our case was particularly rare due to presence of pregnancy in endometriosis posing a diagnostic and therapeutic challenge including care of fetal well being.[4] There have been 3 previous documented cases of vesical endometriosis with uneventful pregnancy and this is the 4th case of such nature. Our case was also rare in a sense that it do not caused any symptoms but was only diagnosed during work up for pregnancy. Previous two pregnancies in the patient were also remarkably uneventful causing no antenatal or postnatal complications done through caesarian section which itself is a risk factor for development of endometriosis due to its scar.[7,8] The establishment of diagnosis in these situations can be difficult as endometriosis may mimic a bladder growth.[1,9]

Use of transvaginal ultrasound,[12] Flexible cystoscopy and MRI[10,11] can narrow the diagnosis with CT being un-useful during pregnancy. Single dose of antibiotics is adequate to cover urological surgery in pregnancy. Spinal anesthesia is the safest option with use of Bipolar cautery for resection minimizing the risk of current passage through the womb.

There are a few number of cases being documented on vesical endometriosis during pregnancy and there is a need to gather more data to establish guidelines for diagnosis and treatment for such cases for safe surgical practices.

Conclusion

Vesical endometriosis in presence of pregnancy is a rare finding and poses a diagnostic and therapeutic challenge. The clinical presentation may be varied. Use of Transvaginal ultrasound and MRI can narrow down the diagnosis with histopathology being confirmatory and pathognomonic.

Conflict of Interest: *None*

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