

SCAR ENDOMETRIOSIS MIMICKING CARCINOMA- MRI FINDINGS: A CASE REPORT

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ABSTRACT

Endometriosis is occurrence of ectopic endometrial tissue outside uterus. It has an incidence of 0.03-0.4%. We presented a case of 35 year old women with history of lower abdominal pain associated with dysuria for last 1 year. On further inquiring the patient interrelated the severity of pain with her menstruation prior to hysterectomy. In this study scar endometrioma involved the urinary bladder mimicking neoplastic lesion/ desmoid tumor with its variable imaging findings and diagnosis on histopathology. Proper clinical history and the association of pain with menstruation really assist in reaching the diagnosis.

Key words: Scar endometriosis , carcinoma , desmoid , cesarean section , dysuria.

Introduction

Endometriosis is defined as the ectopic growth of endometrial tissues outside the uterus. In premenopausal women 15% - 44% have been reported to develop the disease after surgical procedures.¹ Common site of involvements are abdominal wall, ovaries, fallopian tubes, uterine ligaments, bladder and rectosigmoid. This rare entity can be immensely distressing for patients physical and mental well-being. In this study abdominal wall endometrioma involved the urinary bladder mimicking neoplastic lesion/ desmoid tumor with its variable imaging findings and diagnosis on histopathology.

Case Report

A 35 years old lady referred to our Radiology department for ultrasound abdomen with history of lower abdominal pain associated with dysuria for last 1 year. Her obstetric history revealed two lower segment

cesarean sections, last was performed two years back. On examination a small swelling was identified at the site of previous cesarean section. She further added that she had undergone hysterectomy one year back due to menorrhagia and menstrual irregularity. Her lower abdominal pain subsided for some duration after she had undergone hysterectomy, although the swelling and dysuria were persistent. Ultrasonography revealed a hypoechoic area in anterior abdominal wall at the site of previous cesarean section scar which showed extension into the pelvis and infiltrating the dome of urinary bladder. For further characterization and extension contrast enhanced MRI was suggested which discovered fusiform mass in anterior abdominal wall at the site of scar, the lesion appeared predominantly heterogenous isointense with few hyperintense foci on T1 and heterogeneously hypointense with few hyperintense foci on T2WI showing post contrast enhancement. Posteriorly the lesion was invading the antero-superior wall of urinary bladder (Fig. 1a-f). On further inquiring the patient interrelated the severity of her pain with her menstruation before hysterectomy.

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Figure 1a: Sagittal T1W MR image demonstrates a fusiform heterogenous isointense mass with hyperintense foci in anterior abdominal wall



Figure 1b: On sagittal T1W +Gad image the mass is showing heterogeneous enhancement.

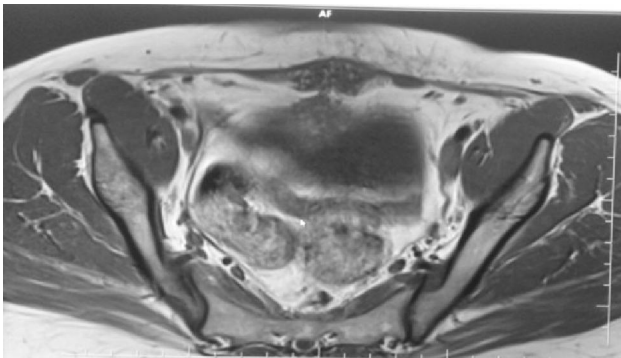


Figure 1c: Axial T1W MR image redemonstrating a fusiform isointense heterogenous mass with hyperintense foci in anterior abdominal wall which has posterior extension in pelvic cavity, infiltrating dome of urinary bladder.



Figure 1d: Sagittal T2W MR image shows a fusiform heterogenous hypointense mass with hyperintense foci in anterior abdominal wall which has posterior extension in pelvic cavity, infiltrating dome of urinary bladder.

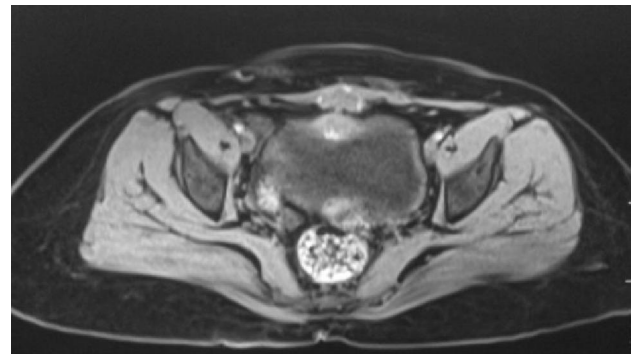


Figure 1e: Heterogenous enhancement on Axial T1W contrast enhanced image.

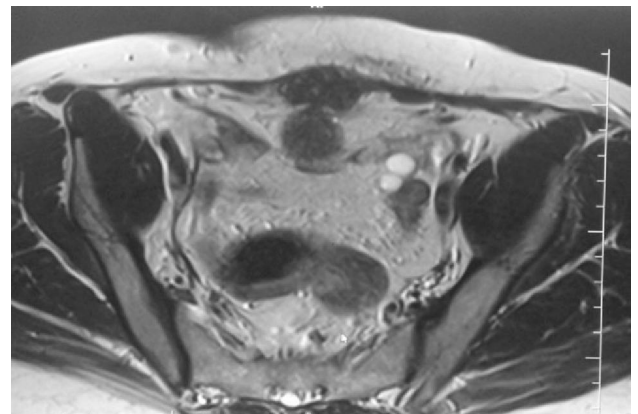


Figure 1f: Axial T2W MR image shows a heterogenous hypointense mass with hyperintense foci invading urinary bladder.

Based on clinical history and imaging findings the provisional diagnosis of scar endometriosis with differential diagnosis of desmoid were made and trucut biopsy of the lesion was suggested. This was later on performed in our intervention suite under ultrasound guidance.

The histopathology report demonstrated fibrocollagenous tissue exhibiting endometrial stroma and glands with mild patchy inflammatory cell infiltrates and brown pigment laden macrophages, on microscopy. Immunohistochemistry showed CD10 positive for endometrial stroma. Hence the diagnosis of endometriosis was confirmed.

Discussion

Endometriosis of abdominal wall is less frequently encountered pathology with its invasion in urinary bladder. Pfannenstiel scars are commonly encountered as a site of endometriosis, its incidence being 0.03% - 0.4%.¹

There are various theories behind the pathogenesis of abdominal wall endometriosis. An abnormal immune response may incite disease process. Mesenchymal cells may transform to form endometriomas. Endometrial cells may lead to ectopic sites either via retrograde menstruation or during surgical interventions.² The clinical presentation of scar endometriosis is abdominal wall swelling with cyclical pain, commonly found in previous scars of cesarean sections, laparotomy or laparoscopic interventions. In this case there was associated dysuria. In premenopausal women 15% - 44% have been reported to develop the disease after surgical procedures.¹ It is increasingly appreciated as more patients are undergoing cesarean sections.

The differential diagnoses of this lesion would include abscess, hematoma, hernia, lipoma, malignant tumor like desmoid, which was considered as second differential on the basis of imaging appearances.⁵ Modalities which can aid in diagnosis of scar endometriosis are ultrasonography, computed tomography and magnetic resonance imaging. Ultrasonography of this type of subcutaneous nodule may show a hypoechoic heterogeneous irregular lesion with internal echoes.

Doppler may give scarce or increased vascularity.^{2,3} Similar appearances were also noted in this case. Studies suggest that MR is more sensitive for evaluation of scar endometriosis and invasion of pelvic viscera in comparison with ultrasound.⁴

This entity does not have specific features on cross sectional imaging.

CT appearance of the lesion varies from well defined to ill-defined, iso to hypoattenuating mass lesion in abdominal wall which shows contrast enhancement. On MR they characteristically appear as heterogeneous hyperintense lesions on T1 & T2 with variable enhancement of lesion.^{1,2}

Malignant transformation of scar endometriosis has been reported especially in chronic cases. Urinary bladder invasion was seen in this case but malignancy was not reported in histopathology samples obtained by Trucut biopsy, it provided accurate diagnosis before planning for further management.

Conclusion

This case report illustrated a rare case of scar endometriosis. Although the diagnosis can only be accomplished after histopathology but the proper clinical history and the association of pain with menstruation really assist in reaching the diagnosis.

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