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Original Research Paper

Radiology

SONOGRAPHIC AND MRI PICTURE OF BROAD LIGAMENT FIBROID

Ankit Jishtu M.D Radiodiagnosis ,CH Kandaghat, Solan (H.P).

Digvijay Singh Tanwar* M.S Gen. Surgery, CH Kandaghat, Solan (H.P). *Corresponding Author

ABSTRACT Leiomyoma is the commonest benign uterine neoplasm arising from smooth muscles. Extra uterine leiomyoma is a rare entity and among the extra uterine fibroids, broad ligament fibroids are the most common to occur.The incidence of broad ligament fibroid is less than 1%.There are many diagnostic difficulties in its diagnosis due to rarity of broad ligament fibroid . Here we report a case of broad ligament fibroid in a young female patient.

KEYWORDS : Leiomyoma, Broad ligament fibroid, ultrasound, MRI pelvic organs.

INTRODUCTION

Leiomyoma is the most common benign neoplasm of the uterus and the female genital tract. Leiomyoma can be intrauterine or extrauterine. Among the extra uterine fibroids, broad ligament fibroids are the most common to occur although its overall incidence is extremely rare at <1%.[1]

CASE REPORT

We report the case of a 18 years old female presented with pain in abdomen for last 1 year , irregular menstrual cycles for 4 years. She developed a dull aching abdominal pain associated with heaviness in the lower part of her abdomen gradually. There were no disturbances in her bladder and bowel function. There was no history of weight loss or jaundice.The age of menarche was 14 years. There were no history of tubectomy and no family history of fibroid, ovarian, breast or colonic tumor. On physical examination patient was afebrile and hemodynamically stable. According to the abdominal examination,abdomen soft and non tender. On palpation no mass can be palpated.

Investigations

Ultrasound pelvic organs showed a large hypoechoic lesion of size 4.21 X 3.02 cm with internal vascularity in pelvis on the right side (Figs 1a,1b). The right ovary is not separately visualized .Uterus and left ovary are normal in size, shape, and echotexture .No evidence of ascites and lymphadenopathy.

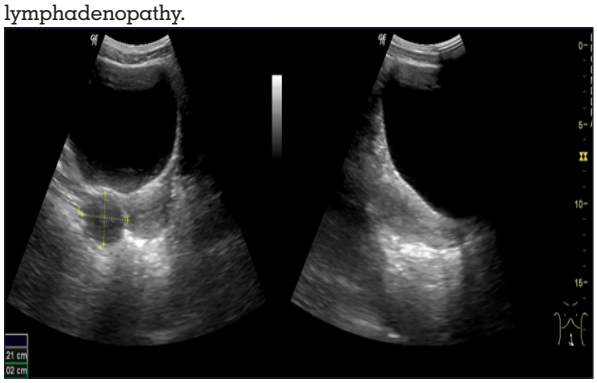

Figure 1a Ultrasound pelvic organ showing hypoechoic lesion in pelvis right adnexa .**1b** Normal uterus appearance in ultrasound pelvic organs.

MRI pelvis showed a well-defined lesion in right adnexa of 4.15 cm X 3cm which appeared hyperintense on T2W while hypointense on T1W image (Figs 2 to 7).The lesion enhancing similar to myometrium. The lesion displaced uterus to the left side. Small cystic areas are seen within the lesion. Perilesional flow voids are seen. Uterus and left ovary are normal in size ,outline and signal intensity.

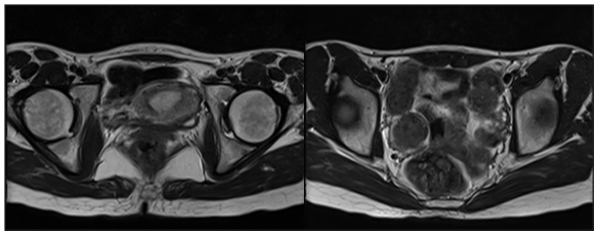

Figure 2a,2b-T2axial MRI sequences showing iso to hyperintense well defined lesion in right adnexa.

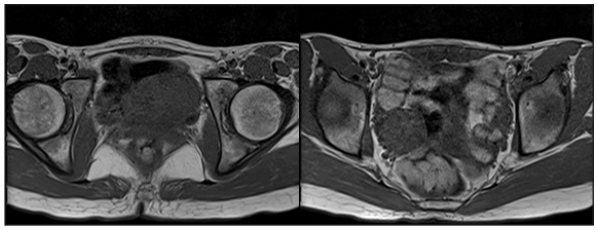

Figure 3a,3b- T1 Axial MRI Images Showing Hypointense Well-defined Lesion In Right Adnexa.

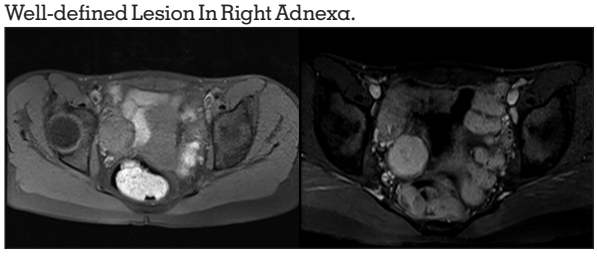

Figure 4a ,4b- T1FS post contrast MRI sequence showing minimal enhancement similar to myometrium.

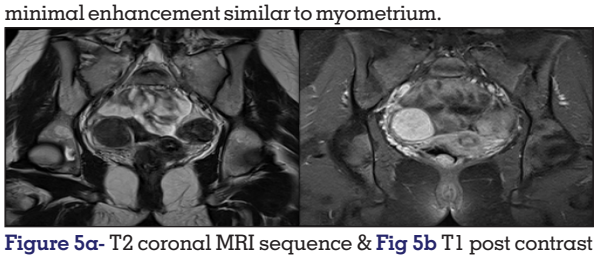

Figure 5a- T2 coronal MRI sequence & **Fig 5b** T1 post contrast MRI sequence showing lesion in coronal plane in right adnexa. Right ovary not separately visualized.

DISCUSSION

Broad ligament leiomyomas are extra-uterine leiomyomas that occur in relation to the broad ligament. Broad ligament leiomyomas are also referred as a type of parasitic leiomyomas.[2]Among the broad ligament tumors, epithelial tumors are the most common type whereas mesenchymal tumors are rare. Among the mesenchymal tumors, the most common one is leiomyoma.[3]

Broad ligament fibroids may be true or false, with 80% having primary origin in the body of the uterus and 20% originating within the folds of the broad ligament, known as true broad ligament fibroids.[4]

The differentials for broad ligament fibroid includes ovarian masses (benign or malignant), tubo-ovarian masses, broad ligament cyst and lymphadenopathy. In our case on clinical examination, ultrasonography and MRI correlation it was suggestive of extrauterine leiomyoma. Leiomyomas may be single or multiple. In our case, there was a single mass in broad ligament suggestive of broad ligament fibroid. Broad ligament leiomyomas have the potential to grow to large size.[5]

CONCLUSION

Here we report a case of broad ligament fibroid in a young female patient, where the facilities like USG which can easily diagnose this rare entity are readily available. The diagnosis of broad ligament leiomyoma is difficult owing to its rarity, unusual presentation, clinical and radiological features. Thus, it is very important to diagnose it and differentiate it with other similar causes of adnexal masses. We are reporting this case owing to its rare presentation and diagnostic difficulties.

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