International Journal of Science and Research (IJSR)
ISSN: 2319-7064
SJIF (2019): 7.583

Red degeneration of Fibroid in Perimenopausal Woman - A Rare Occurrence

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Abstract: ***Fibroids are benign, monoclonal tumors of smooth muscle cells of the myometrium and contain large aggregation of extracellular matrix composed of collagen, elastin, fibronectin and proteoglycan.[1]The self-reported prevalence of uterine fibroids ranged from 4.5% (UK) to 9.8% (Italy), reaching 9.4% (UK) to 17.8% (Italy) in the age group of 40-49 years.[2] They are the most frequent indication for performance of hysterectomy, accounting for nearly 240,000 such procedures in the United States.[3] Although the precise cause of fibroids are unknown, advances have been made in understanding the molecular biology of these benign tumours and their hormonal genetic and growth factors. [4] Most common etiological factor encountered is hormonal and although estrogen, progesterone growth hormone and human placental lactogen have been implicated in the growth of myomas, evidence in support of estrogen and progesterone is remarkable. Degeneration in a fibroid is seen when the blood supply falls inadequate to support the centre of fibroid. Usually degeneration in a fibroid requires a symptomatic medical management.***

Keywords: red degeneration, fibroid, peri-menopausal age, painful myoma

1. Introduction

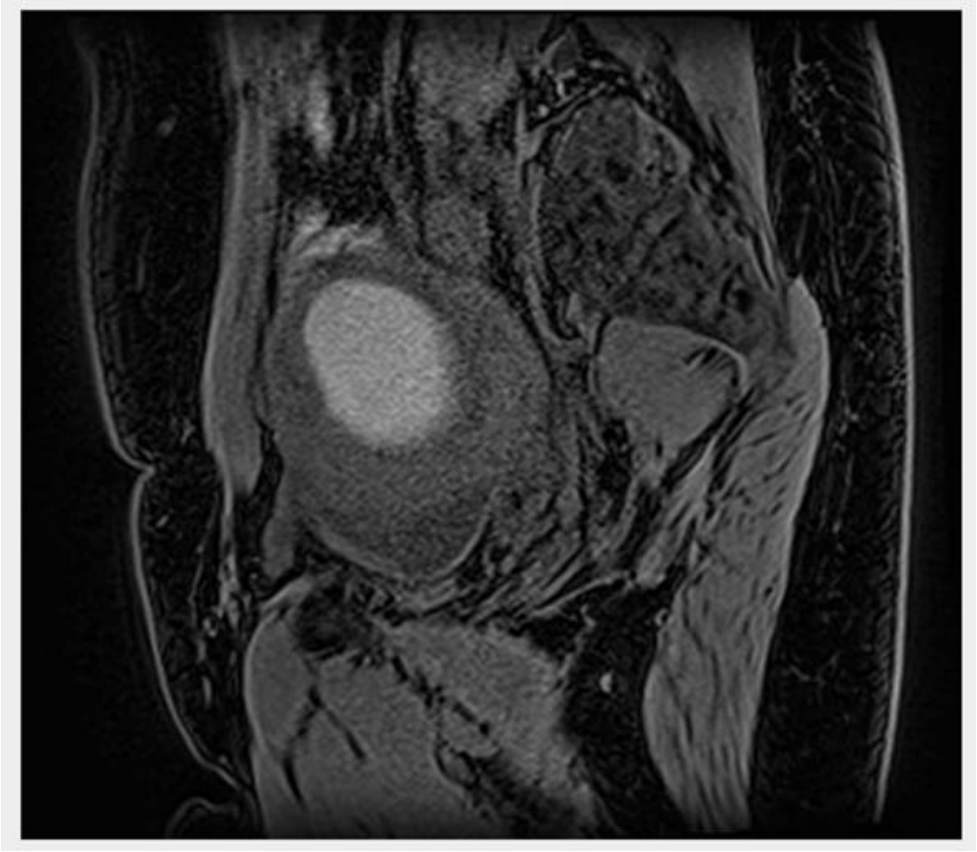
Leiomyoma or fibroid is the most common pelvic tumour of uterus and female pelvis. Being the most common tumour its aetiology is not well understood. Degeneration occurs when there is lack of blood supply to the fibroid as it grows in size. It causes increase in morbidity rarely causing mortality. [5] Various secondary changes associated with fibroids include atrophy, hyaline changes, cystic degeneration, calcareous degeneration, osseous degeneration, red or carneous degeneration sarcomatous changes.

Red degeneration or carenous degeneration is the commonest degeneration occurring in leiomyoma of the pregnant uterus. The exact mechanism is not completely understood, one hypothesis being venous obstruction at the periphery of lesion leading to haemorrhagic infarction and necrosis. Although it is rare in perimenopausal age group women, it should always be suspected in case of a painful myoma in women above the age of 40 years.

2. Case Report

A 47 years old woman, parous (para 2 and live 2) and sterilized with regular menstrual cycles presented with complain of acute abdominal pain and dysmenorrhoea on day 3 of her cycles. She also complained of increased frequency of micturition and fever for one day. On examinations there was tachycardia and clinically the patient was mildly anaemic. On abdominal examination, the uterus was about 14 weeks size and tender. It was firm in consistency and immobile. On bimanual vaginal examination uterus was anteverted and about 14-16 weeks size. A mass was palpable which was firm and tender and not separately felt from the uterus, mobility was restricted. Fornices were free. On admission all routine investigations were done. ESR and white cells were found to be raised. On U.S.G uterus was found to be 14*12.4*9cms. A posterior wall fibroid of size10.9*8.2 cm was noted. Endometrium and myometrium differentiation could not be made out. MRI done showed large T1 bright uterine mass compatible with fibroid that has undergone red degeneration.

After improving the general condition of the patient and necessary preoperative investigations, patient was taken up for a total abdominal hysterectomy with bilateral salphingo-oophorectomy. Cut section of the uterus revealed a purple red intramural myoma within posterior wall of uterus. Specimen was sent for histopathological examination and reports came as red degeneration.



3. Discussion

Degenerative changes in a fibroid occur when the size of the tumor outgrows its blood supply leading to necrosis of the tissue in it. The most common type of degenerative changes in fibroid is a hyaline degeneration. [6]Only red degeneration and sarcomatous degeneration are usually symptomatic.

Red degeneration of fibroid is a complication that is more frequently seen in pregnancy although cannot be ruled out in case of a painful myoma in perimenopausal age groups. The exact mechanism is not completely understood, one hypothesis being venous obstruction at the periphery of lesion leading to haemorrhagic infarction and necrosis. It present with symptoms such as abdominal pain, tenderness, mild fever and increased white blood cell count. They are managed symptomatically with rest and analgesics. Fibroids with intractable pain not responding to medical management, rapid growth in size, a very large fibroid needs surgical management.[6]

In red degeneration, the myoma becomes tense and tender and severe abdominal pain with constitutional upset and fever. Tumour itself assumes a peculiar purple red colour and develops a fishy odour. On examination vessels in the capsule are found to be thrombosed. If the condition cannot be managed medically, surgical interventions may be necessary.

4. Conclusion

An increase in the size of a myoma is seen in pregnancy and it is not rare for it to undergo degenerating changes. However, it is fairly rare in perimenopausal age group. This case is found to be peculiar as the red degeneration of fibroid is not very common at perimenopausal ages.

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