

Degenerative Fibroid presents as Intrauterine Collection-Pyometra ?

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Abstract

Leiomyoma of uterus is a benign tumor commonly seen in females of Reproductive age group. It arises from pelvis which can be of variable sizes. We are reporting a case of 40 yrs old women with history of cough & generalised weakness for two weeks. Abdominal examination revealed a 22 weeks mass arising from pelvis, firm to cystic in consistency, mobile and non tender on palpation. Ultrasound showed a large mass filling the abdominal cavity, but MRI suggested degenerative fibroid. The patient underwent total abdominal hysterectomy with bilateral salpingoophorectomy. In general fibroids can be managed medically, surgically, or expectant management, or combination of all the three treatments.

Keywords: Fibroid, cystic degeneration, leiomyoma of uterus, pyometra

Introduction

A leiomyoma or fibroid is a benign mesenchymal tumour presenting as the most common uterine neoplasm with a prevalence of 20%-30% in women of reproductive age group.^[1] Most patients with fibroid are asymptomatic, but they may have multiple presentations such as infertility, abnormal uterine bleeding, pain or palpable mass. As the fibroids increase in size, their blood supply is not enough for such a huge mass causing various types of degeneration such as hyaline (60%), cystic (4%), red (3%), calcareous (4%) or sarcomatous degeneration (0.1-0.8%).

The hyaline degeneration is the most common change in leiomyoma. The cut surface of a hyalinized area is smooth and homogeneous and does not show the whorllike arrangement in the rest of leiomyoma. The hyaline degeneration becomes liquefied and forms cystic cavities filled with clear fluid or gelatinous material sometimes.

Over time, with continued diminished blood supply and ischemic necrosis of tissue, calcium phosphates and carbonates are deposited in myomata. Necrotic leiomyomata are dark and hemorrhagic in the interior. Eventually, the tissue breaks down completely. So-called red or carneous degeneration is associated with pregnancy.

Occasionally, fat occurs in leiomyomata as true fatty

degeneration. The cut surface may have a yellowish discoloration. Infrequently, a deposit of true fat may form a fibrolipoma; however, the presence of fat in a leiomyoma is rare. Most dangerous but rare is sarcomatous degeneration.^[2-5]

The typical clinical findings and ultrasonography appearance of a uterine fibroid are obscured by the degenerative changes. This report shows how the diagnosis could be misleading with the fibroid degeneration.

Case Report

A 40 year old patient presented to OPD with history of cough and generalised weakness for two weeks. She had a history of regular menstrual cycles with average flow. General examination showed pallor and koilonychia. Abdominal examination revealed a 22 weeks mass arising from pelvis, firm to cystic in consistency was mobile and non tender on palpation. Per speculum examination revealed congested cervix and no discharge, bimanual examination revealed uterus corresponds with 20 weeks size.

Ultra sound examination was suggestive of bulky uterus

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of size 15x11x11 cms with endometrial thickness of 12mm, thick endometrial collection noted with floating internal echoes and echogenic components (vol-430 cc), right ovary sub-optimally visualised, left ovary 3x2 cms normal, no free fluid, features suggestive of endometrial malignancy / pyometra. To confirm the diagnosis, MRI was done which suggested degenerative fibroid of 98x83x79 cm arising from fundus of uterus. Multiple small intramural fibroids which were not connected with endometrium. Cervix and bilateral ovaries were normal.

Decision for hysterectomy was taken and intra operative findings revealed uterus of size 20x15 cms with cystic consistency and normal bilateral adnexa. Due to the immense size of the tumor and fibroid being in major intramural; abdominal hysterectomy was decided and total abdominal hysterectomy was performed and bilateral ovaries were removed. (Figure 1) On cut section cystic degeneration of huge intramural fibroid with collection 500 cc was seen with small intra uterine cavity separate from the mass confirming our diagnosis. (Figure 2)

Post operative period was uneventful and the patient was discharged on 8th day. Histopathological examination report confirmed the diagnosis suggestive of chronic non-specific cervicitis with squamous metaplasia and Nabothian cyst; Endometrium showed hyperplasia without atypia and leiomyomatous polyp; leiomyoma with cystic changes; One ovary-corporus luteum and follicular cyst other follicular cyst; Bilateral tubes were normal.

Discussion

Fibroids are benign outgrowth of smooth muscles of uterus with pseudo capsule. They are divided according to their origin as submucosal, intramural, subserosal when they grow in size. As they outgrow in size the blood supply is not adequate and it causes degeneration (hyaline, cystic, red and myxoid). Ultrasound is the first line of modality to diagnose fibroids.

Leiomyomas are represented by hypoechoic & irregular anechoic areas in the presence of cystic degeneration. High level echo clusters with distal acoustic shadowing seen in calcific degeneration.^[6-9] Interface vessel sign is used to differentiate between subserosal fibroids & adnexal masses.^[10] MRI is used as diagnostic modality to determine origin & nature of pelvic margins &



Figure 1. Intramural fibroid with the uterus



Figure 2. Cut section of intra mural fibroid with cystic degeneration

inappropriate USG features. T2 weighed images are used over T1 weighed images which shows well circumscribed masses with sharp demarcation from surrounding myometrium. MRI helps in more accurate diagnosis.

Conclusion

Degenerative fibroids have diagnostic challenge. Hence clinical & USG correlation with clinical knowledge of

appearances on USG, to differentiate types of degeneration will be helpful. MRI helps in complicated cases.

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