Extreme Sequele of Cystic Degeneration of Huge Fibroids Mimicking Like Endometrioma in One Case and Ovarian Neoplasm in Two Cases

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ABSTRACT

Cystic degeneration of uterine leiomyoma is a rare condition that may sometimes present with clinical and imaging findings giving impression of other diagnosis like ovarian mass or endometrioma, where final diagnosis depends on histological confirmation.

Here we are presenting three cases with cystic degeneration of fibroid uterus with varying presentations. While two of the cases mimicked ovarian neoplasm, one case presented like endometrioma. All three cases were successfully managed by surgical procedure with uneventful perioperative period. Histopathology of the specimen confirmed the diagnosis of cystic degeneration of fibroid uterus in all three cases.

Keywords: Cystic degeneration, Endometrioma, Uterine Fibroid

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INTRODUCTION: Uterine leiomyomas are the most common benign smooth muscle tumours of the uterus which predominantly develops in 20% to 40% of women during their reproductive age. Clinically they can present with different of symptoms depending upon their site and size. Degeneration in a leiomyoma is basically a result of loss of blood supply. Hyaline , cystic and fatty degeneration that occur in central areas are of no clinical significance and are caused by diminished vascularity in large fibromyomas .[1] This case series includes three interesting cases of extensive cystic degeneration in huge fibroids in all three cases . Because of the extreme sequele of cystic degeneration in these fibroids gave rise a different clinical diagnosis even on the imaging modalities .In case 1, the huge fibroid

has given the picture of a cystic degeneration as an endometrioma on . In case 2 and case 3, the huge fibroids with cystic degeneration has given clinical impression of the ovarian neoplasm and the similar dilemma was created even on the findings of Computed Tomography scan and ultrasonography. At last when there is a differentiated opinion in cases of uterine fibroids with extensive degeneration which mimicks like a Endometrioma or Ovarian neoplasm , in these cases ,the exploratory laparotomy with keeping frozen section ready has helped the patient to go ahead with Total Abdominal Hysterectomy . In these three interesting cases, after cutting the uterus, the degenerated fibroid has literally transformed into cystic fluid which was overflowed out of the uterus.

CASE 1

A 35 year old, married since 25 years, P3L3 with complaints of dull aching type of pain in lower abdomen since 1 week with h/o constipation on and off her previous 2 menstrual cycles were normal. her past medical and surgical history was nothing specific. On General examination her general condition was Fair, She was afebrile, her Pulse rate was86beats/min, Blood pressure was124/80 mm Hg. She wasn't pale. There were no edema feet. Her systemic examination revealed normal findings. On Per Abdomen Examination There was a huge mass of 24 weeks size uterus arising from pelvis. The mass had soft to firm in consistency with diffuse margins.nontender.no fluid Thrill., scar of Tubal ligation seen .On Per Speculum Examination cervix was pulled up very high. On Per vaginal examination revealed 24 weeks mass size which is soft to firm in consistency, non tender. The uterus was not felt seperatly from the mass.provisional diagnosis of? Uterine Fibroid ? Ovarian Tumour. Her Haemoglobin was14grams%her total leucocyte counts were 8500 per cubic cm, Platelets were adequate.her liver and Renal functions were within normal limits. Her tumour Marker CA-125 was24.2 which was normal in values. her Pap smear report was inflammatory smear, no evidence of malignancy.her Ultrasound Findings were suggestive of Bulky uterus of

15cmx9.4cmx10cm with Anechoic collection in endometrium Adnexa clear,findings suggestive of ?Endometrioma,? Hydrometra. Her Computerised Tomography (CT scan)report was suggestive of 18.1cmx 9.7cmx 9.9 cm with 9.2cmx8.7cmx3.1 cm well defined hypodense cystic lesion noted in fundus and posterior wall of uterus.Also seen were subcentimeter homogeneously enhancing lymph nodes in left para aortic and mesentric region.The Impression was given as? Endometrioma,?? Degenerated fibroid ? Cornual collection.

After the Anasthetic fiteness Patient was posted for surgery. On Laparotomy findings were huge mass of 24 weeks uterine size,soft to firm in consistency, mobile with left ovary is stuck up to the uterine fundus. Total abdominal Hysterectomy with left salphingo-oopherectomy with Lt sided Iliac lymph node sampling done and send to the Frozen section. On Gross Specimen was looking like Myomatous uterus. On Cut Section revealed The large amount of straw coloured Fluid Approximately 300ml coming out of the uterine cavity and the uterine wall seen thinned out,no myoma was seen.Frozen section report was Leomyoma with extreme sequale of cystic degeneration of the huge fibroid which mimicked as Endometrioma on CT scan and Ultrasound. Her postoperative period was uneventful. Stitches removed were healthy and patient was discharged. Her final Histopathology Report was Leiomyoma of the uterus with cystic degeneration.

CASE-1 (All figures of case report as below):

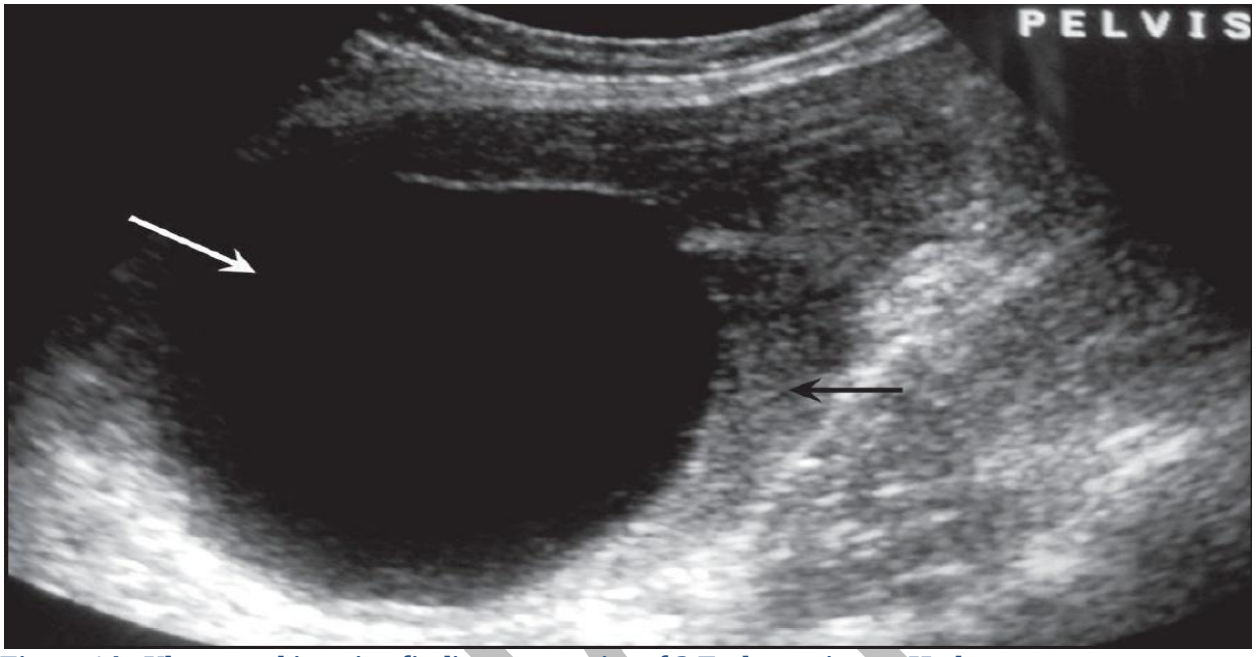

Figure 1A -Ultrasound imaging findings suggestive of ? Endometrioma , Hydrometra

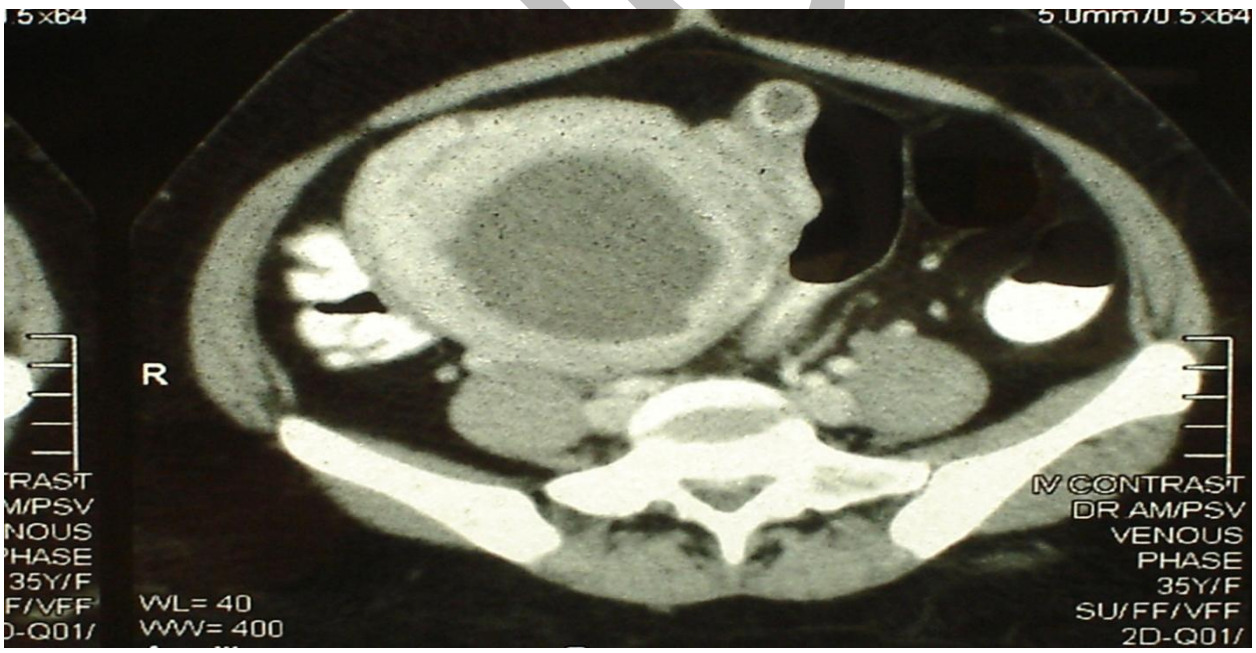

Figure 2A: Computed Tomography findings giving impression of ? Degenerated fibroid ? Cornual collection? Endometrioma ? Haematoma

Figure 3A: Showing gross specimen of uterus with cystic degeneration of fibroid.

Figure 4A – Showing cut section of cystic degeneration of fibroid uterus.

CASE-2

A 50 years postmenopausal women who was Para2, came with complaint of Pain in abdomen since 1 month. Her ultrasonography was suggestive of bulky uterus 11cm x 8cm x 10 cm with multiple fibroid uterus, largest of size 8cm x 6.5 cm , endometrial thickness 7 mm , with bilateral normal ovaries . On examination, her

general condition was fair, pulse was 80/min, bp 120/80 mmhg , respiratory and cardiovascular system examination normal , per abdomen 16 to 18 week size mass palpable . on per speculum examination cervix and vagina were healthy . On per vaginal examination, uterus was 16-18 week size, anterior wall fibroid felt, right forniceal fullness was present. Preanesthetic fitness done, patient was fit for surgery. Total Abdominal Hysterectomy with bilateral salpingo-oophorectomy done under Spinal anesthesia .Abdomen opened in layers .In Situ uterus was large 15cm x 16 cm irregular surface due to multiple uterine fibroids, largest 10cm x 12 cm fibroid in lower utrine segment , 4cm x 3cm anterior wall fibroid and 4cm x 3 cm broad ligament fibroid. There were areas of necrosis leading to fluid filled cavities. hemostasis achieved completely and after confirming mopp instruments counts Abdomen closed in layers Patient withstood the procedure well .Her postoperatiove period was uneventful . Her Histopathology report was suggestive of Lieomyoma with cystic degeneration .

Figure 1B: Gross specimen of cystic degeneration of fibroid uterus

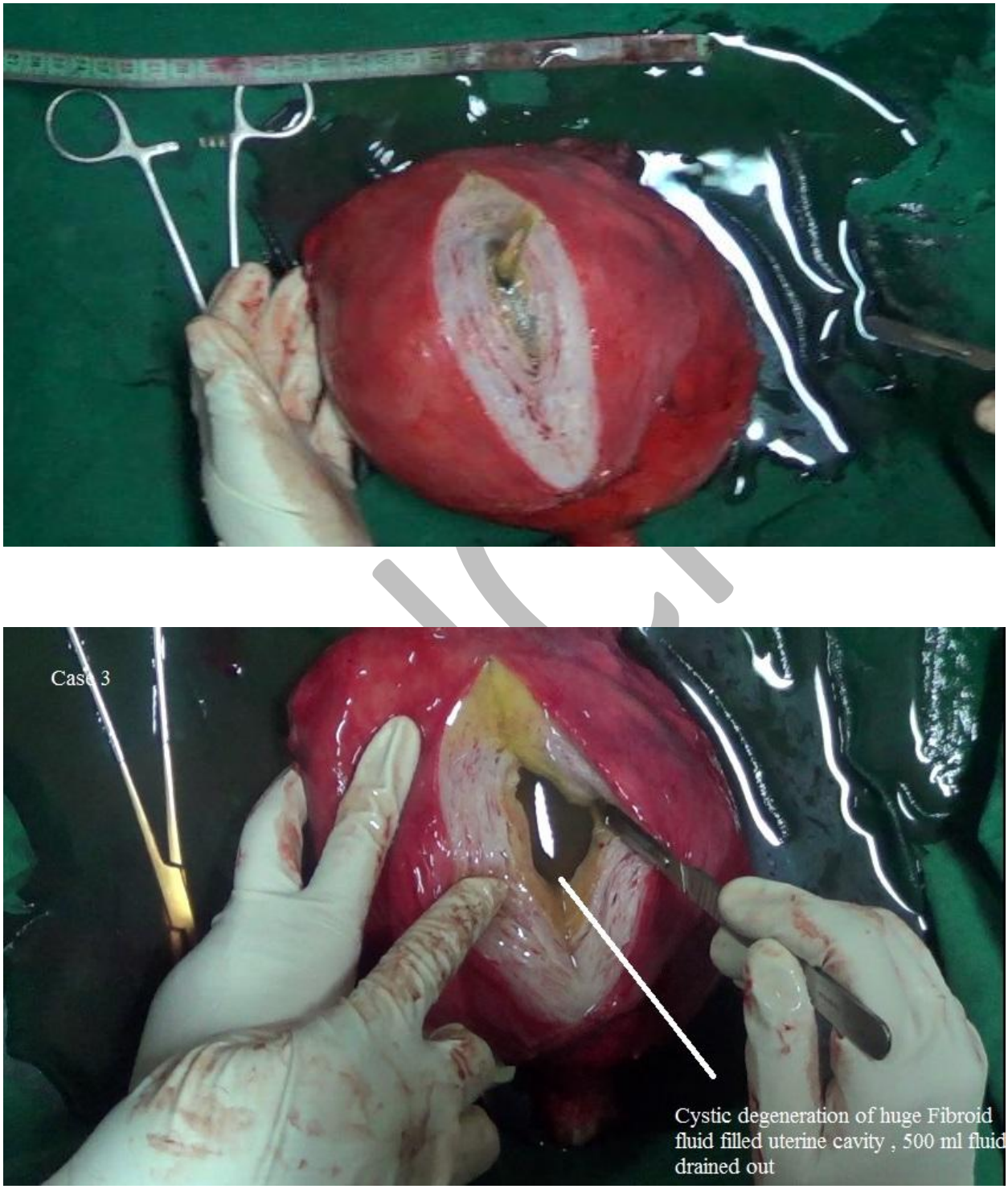

Figure 2B: figure showing gross specimen of cystic degeneration of fibroid uterus

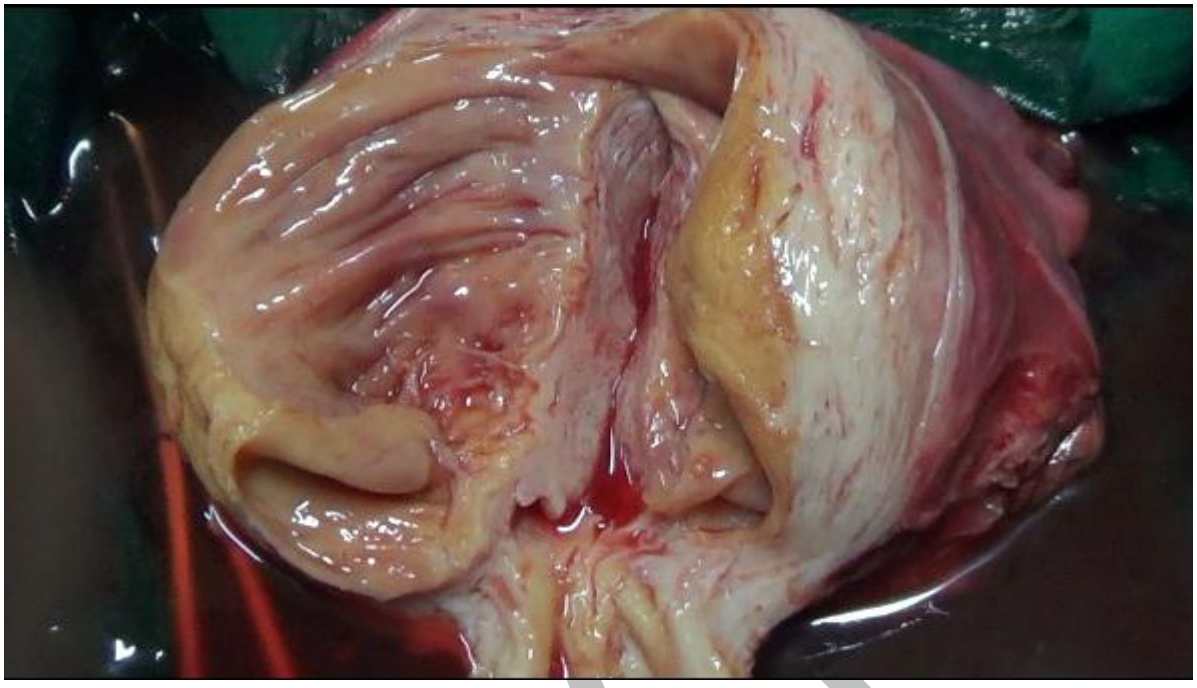

Figure 3B showing cystic degeneration of fibroid uterus

CASE 3

A 45 year female married since 24 years. She was Para2 Living2 with previous 2 Lower Segment Ceasarean Section came with complaint of pain and heaviness in the abdomen since 8 days. Her previous menstrual cycles were regular. Her ultrasonography was suggestive of large solid pelvic mass of 14.9cm x 12cm x 12.7 cm with multiple large cystic areas, internal echos and septations within, suggestive of ovarian malignancy. Her Computerized Tomography scan was suggestive of 18cm x 11 cm heterogenous mass arising from uterus with moderate post contrast enhancement. The lesion was extending significantly into abdominal cavity and showed multiple internal cystic necrotic areas . On examination , her general condition was fair , pulse was 80/min , BP 120/80 mmHg, respiratory and cardiovascular system examination normal , per abdomen 26 to 28 weeks uterine size mass palpable ,arising from pelvis ,firm to hard in consistency with restricted mobility , lower border of the mass could not be reached , no evidence of free fluid. On per

speculum examination cervical erosion on anterior lip 1cm*1cm was present which does not bleed on touch. On per vaginal examination same mass of 26-28 weeks uterine size felt which was firm to hard in consistency. The mobility of the mass wasrestricted and the uterus was not palpable separately from the mass bilateral fornice scould not be assessed properly because of the huge impacted mass. Her all haematological investigations and Renal functions, liver functions were in normal range.her Tumour Marker CA-125 was 6.69 units which was in normal range. After the Preanesthetic fitness patient posted for exploratory laparotomy. After opening the Abdomen in situ findings were, A huge mass of 28 weeks uterine size measuring 22cmx8cmx20cm, Arising from the fundus and the anterior uterine wall of the uterus, the upper portion of the mass was multiple bosselated, highly vascular, congested,hard in consistency.all over the mass there were thick thombosed vessels .the mass was red,congested,irregular,hard in consistency looking like Sarcomatous change in the myomatous uterus. Both the ovaries were apparently healthy.Anteriorly the urinary Bladder was Adherent very densly,The separation of the Bladder was done by sharp dissection and using of the cautery. Total Abdominal Hysterectomy was done by bilateral clamping,cutting and ligating of both Round, Infundibulopelvic ligaments .both uterine arteries were secured.as ovaries were appeared healthy so preserved. As the mass was looking like ? sarcomatous frozen section was done. On the cut section of the uterus there was a fluid of 200ml drained out with classical cystic changes occurred in the huge fibroid. Report was suggestive of cystic degeneration of fibroid. Hemostasis achieved completely and after confirming instruments counts Abdomen closed in layers . Patient withstood the procedure well .postoperative period was uneventful. Final Histopathalogy report was Leiomyoma with cystic Degeneration.

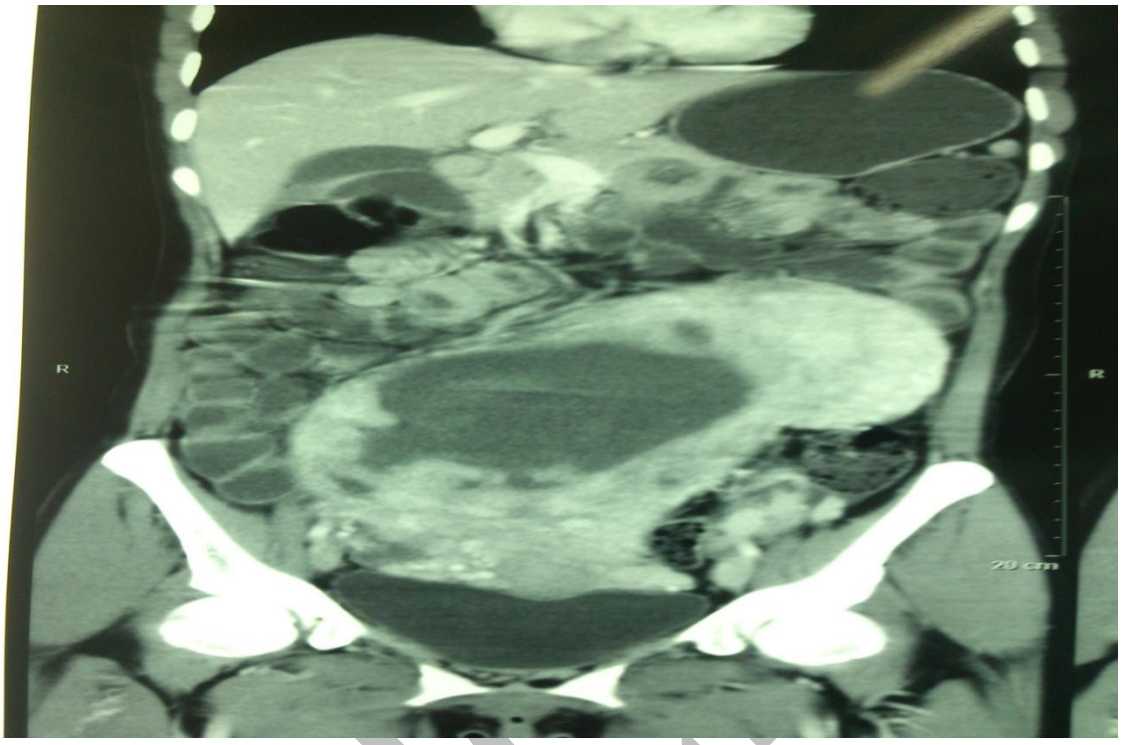

Figure 1C – showing MRI imaging of uterine fibroid with cystic degeneration

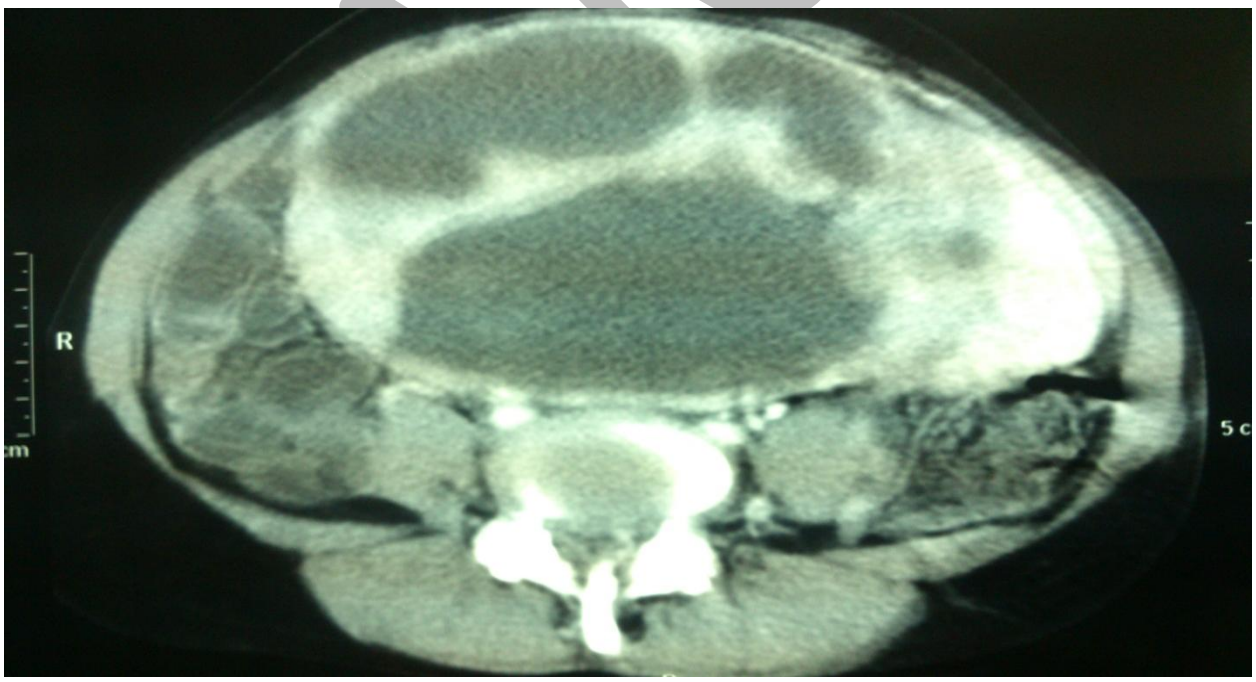

Figure 2C: Showing computed tomography imaging of uterine fibroid with cystic degeneration .

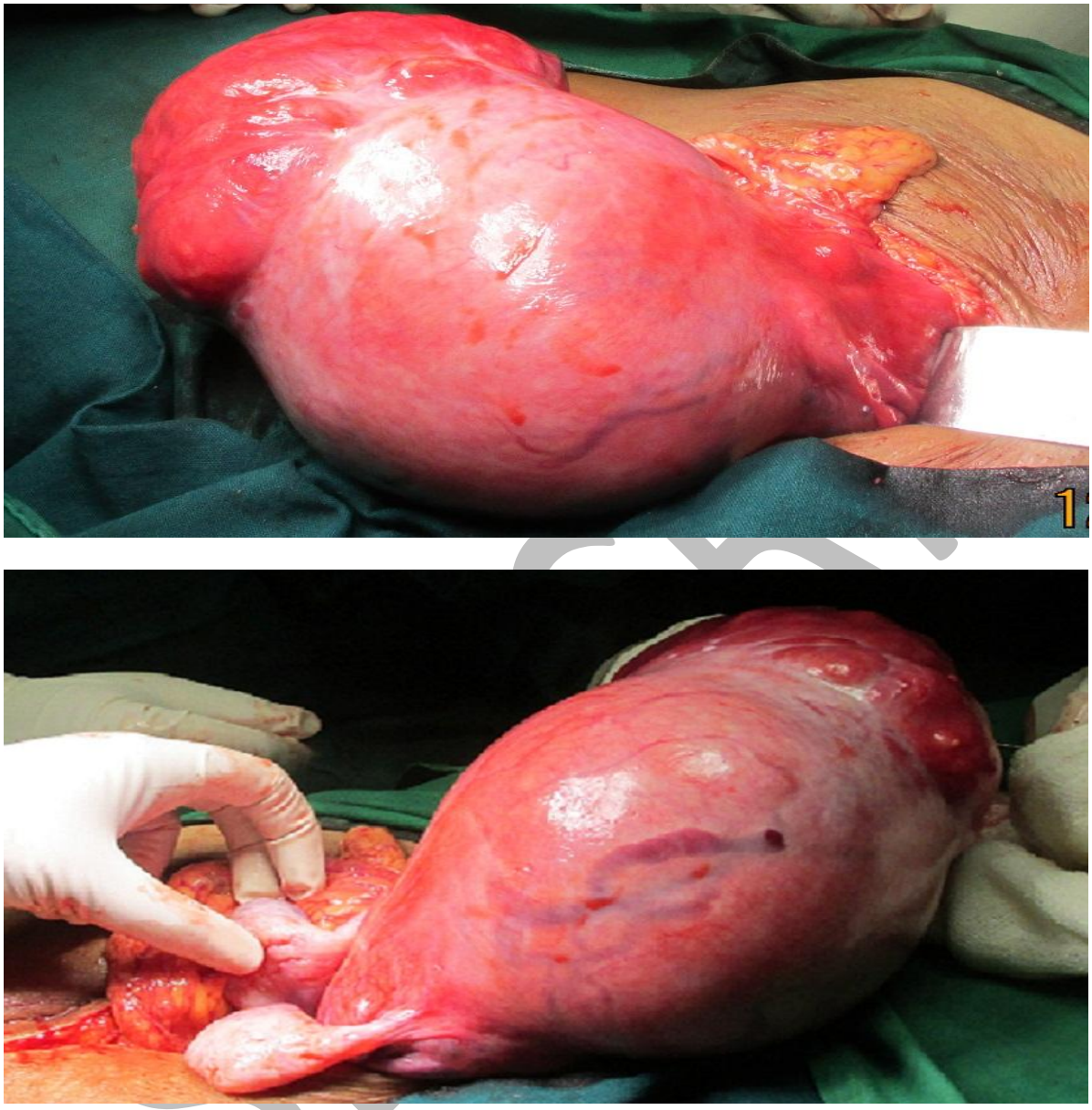

Figure 3C: Showing Intra-operative picture of cystic degeneration fibroid uterus

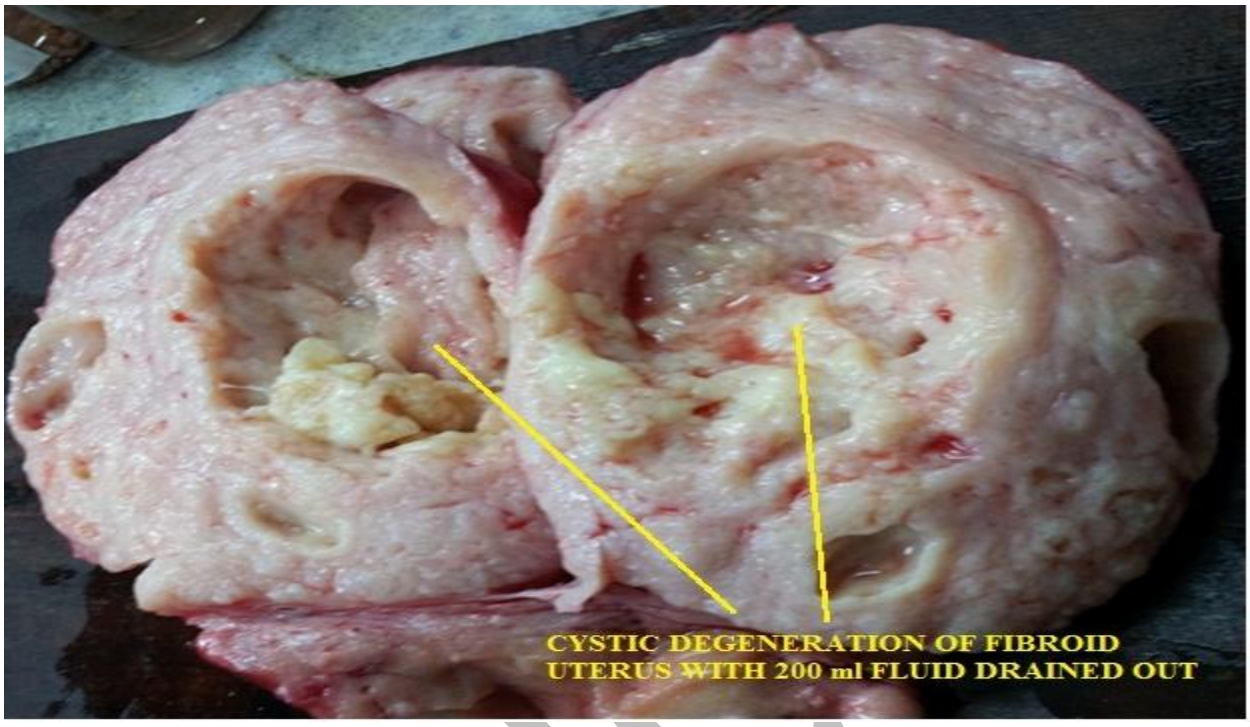
CYSTIC DEGENERATION OF FIBROID
UTERUS WITH 200 ml FLUID DRAINED OUT


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Figure 4C: Showing cut specimen of cystic degeneration of fibroid uterus

DISCUSSION

A uterine fibroid is also called as leiomyoma of the uterus which is a benign tumour arising from smooth muscle of the uterus. The uterine fibroid undergoes degenerations mainly Hyaline, that originates from the smooth muscle layer (myometrium) of the uterus.

Fibroids are the most common benign tumors in females and typically found during the middle and later reproductive years. While most fibroids are asymptomatic, they can grow and cause heavy and painful menstruation, painful sexual intercourse, and urinary frequency and urgency. Some fibroids may interfere with pregnancy although this appears to be very rare.[2]

Fibroids, particularly when small, may be entirely asymptomatic. Symptoms depend on the location of the lesion and its size. Important symptoms include abnormalgynecologic hemorrhage, heavy or painful periods, abdominal discomfort or bloating, painful defecation, back ache, urinary frequency or

retention, and in some cases, infertility. There may also be pain during intercourse, depending on the location of the fibroid. During pregnancy they may also be the cause of miscarriage, bleeding, premature labor, or interference with the position of the fetus.

While fibroids are common, they are not a typical cause for infertility accounting for about 3% of reasons why a woman may not be able to have a child.[3] Typically in such cases a fibroid is located in a sub-mucosal position and it is thought that this location may interfere with the function of the lining and the ability of the embryo to implant.[3] Majority of women with uterine fibroids will have normal pregnancy outcomes.[4] Also larger fibroids may distort or block the fallopian tubes.

Intramural fibroids are located within the wall of the uterus and are the most common type

Sub-serosal fibroids are located underneath the mucosal (peritoneal) surface of the uterus and can become very large.

Sub-mucosal fibroids are located in the muscle beneath the endometrium of the uterus and distort the uterine cavity

Cervical fibroids are located in the wall of the cervix (neck of the uterus)

Known risk factors are African descent, nulliparity, obesity, polycystic ovary syndrome, diabetes and hypertension.[5]

Fibroids that lead to heavy vaginal bleeding lead to anemia and iron deficiency. Due to pressure effects gastrointestinal problems such as constipation and bloatedness are possible. Compression of the ureter may lead to hydronephrosis. Fibroids may also present alongside endometriosis, which itself may cause infertility. Adenomyosis may be mistaken for or coexist with fibroids.

In very rare cases, malignant (cancerous) growths, leiomyosarcoma, of the myometrium can develop. About 1 out of 1000 lesions are or become malignant, typically as a leiomyosarcoma on histology. A sign that a lesion may be malignant is growth after menopause.

In extremely rare cases uterine fibroids may present as part or early symptom of the hereditary leiomyomatosis and renal cell cancer syndrome.

Ultrasound has evolved as the standard tool to evaluate the uterus for fibroids. Also magnetic resonance imaging (MRI) can be used to define the depiction of the size and location of the fibroids within the uterus. A more recent study has suggested that diagnostic capabilities using MRI have improved the ability to detect sarcomatous lesions.[6]

CONCLUSION

In conclusion, fibroid uterus may have a spectrum of presentations and sometimes the rarest of presentations may give rise to a clinically confusing scenario. Although fibroids usually have a characteristic Ultrasound Appearance but in cases of the huge size and in cases of Degenerations it may create some confusion at the diagnosis. The 03 cases in the case series which has cystic Degeneration in its extreme sequale has given different Diagnosis which mimicking like a Endometrioma in the First case.and in the two cases it has given Diagnosis as Ovarian Neoplasms on the Imaging modalities so it is atrue challenge to the Gyanecologist even in the era of modern Technology this condition may present as a different appearance and still will be a great challenge in managing such huge tumours. the Tumour markers will help in coming to the diagnosis. Ultimately As Abdomen is still a magic Box one can go ahead with the Exploratory Laparotomy by keeping the Frozen section ready. As in the Developing countries still patient come to Later stage when the mass grows to the larger size.its an humble attempt to contribute my clinical Experience to the Medical science.

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