Case Report

An unusual presentation of degenerating fibroid

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INTRODUCTION
Leiomyoma or fibroid is the most common pelvic tumor of uterus and female pelvis. Being the most common tumor its etiology 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.1 Degeneration is seen commonly during pregnancy and is known as red or carneous degeneration of fibroid or necrobiosis characterized by pelvic pain, fever and elevation of white blood cell count.

CASE REPORT
A 35 years female in lactation amenorrhea came to emergency department with complaints of pain in abdomen and backache for 1 month, aggravated since last 4 days and fever since last three days. She had delivered vaginally 3 months back with no complaints of puerperal fever, postpartum hemorrhage etc. On examination, she was vitally stable except for tachycardia. On abdominal examination, her abdomen was soft, non-tender. A vague mass was palpable which was arising from pelvis in right iliac fossa extending up to umbilicus. It was firm in consistency, immobile with vague margins. On vaginal examination, uterus was antverted and a 10x15x10cm mass was palpable in the right fornix which was fixed and minimally tender. It was firm in consistency and was not separately felt from uterus. Left fornix was free and non-tender.

On admission in ward, she had repeated spikes up to 38°C. All Fever routine investigations like peripheral smear for malaria parasite, Leptospirosis antigen, Dengue, Optimal Antigen, Widal test sent on each spike were negative. All routine investigations were in normal range, except for white blood cell count which showed an increasing trend. There was no positive response to higher antibiotics and anti-malarial drugs. Ultrasound pelvis was suggestive of a right ovarian mass, measuring 8x5 cm in size, most likely of inflammatory origin. Serum CA-125 was increased (144). On MRI scan (Figure 1), there was a large collection seen in right posterior pararenal space with fluid air within. A thin rim of enhancement and peripheral septations were seen. The lesion was anteriorly displacing the right kidney, ascending colon and ileocaecal junction. Inferiorly, it was extending into the pelvis up to the roof of the bladder. The lesion was adherent to the right side of the uterus but right adnexa also cannot be visualized. There was no
abnormality of liver, pancreas, spleen and kidney seen. No ascites, no lymphadenopathy seen.

Patient had quick recovery post exploration. Post-operative course was uneventful. Histopathology report of the mass sent was suggestive of red degeneration of benign spindle cell leiomyoma.

DISCUSSION

Uterine fibroids, also known as leiomyomas or myomas are benign, monoclonal, smooth muscle tumors of the myometrium. These tumors may occur in isolation or as multiple growths of varying size, shape and location throughout the uterine musculature. They can be asymptomatic or can also present with symptoms of heavy bleeding, pelvic pressure, infertility etc. 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. Only red degeneration and sarcomatous degeneration are usually symptomatic.

Pregnancy is characterized by increase in size of fibroid, commonly in first trimester. This may be related to effects of rising levels of human chorionic gonadotropin, receptors of which have been found in leiomyoma cells. Degenerative changes in fibroid during pregnancy are called as Red or Carneous degeneration. The exact mechanism is not completely understood, one hypothesis being venous obstruction at the periphery of lesion leading to hemorrhagic 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.

Infections spreading to the fibroid are more common if it is in submucosal region. Most commonly seen in pedunculated submucosal fibroid which is protruding in vagina. The organism isolated from an infected fibroids are diverse can be gram positive, gram negative, aerobic and anaerobic bacteria (Clostridium species, Staphylococcus aureus, Streptococcus hemolyticus, Proteus species, Streptococcus agalactiae, Enterococcus faecalis, E. coli, Bacteroides fragilis. An infection can be associated with following clinical conditions like postpartum ascending uterine infection, abortion, postmenopausal, following uterine artery embolization and bacteremia in intravenous drug abusers. The possible routes of spread of infection to fibroid can be from endometrial cavity, direct extension from adjacent bowel or adnexa, hematogenous or lymphatic spread from infection elsewhere in the body. A separation of infected fibroid in puerperal period can present with late postpartum hemorrhage.

A decision for Exploratory Laparotomy was taken with multidisciplinary approach. Intraoperative a broad ligament mass of 10x8x8 cm was seen arising from the myometrium of right lateral uterine wall below the level of fallopian tube, most likely a fibroid (Figure 2). It appeared degenerated with pus extruding from it which was tracking up to retro peritoneum on right side and upwards up to the lower pole of right kidney. The mass was excised and sent for frozen section was suggestive benign spindle cell leiomyoma. Ileum, caecum and ascending colon were mobilized thereby exposing right retro peritoneum and right Para-nephric space. Pus was drained and two drains were kept, one in cavity created in broad ligament after fibroid excretion and other in right Morrison’s space.

Figure 1: MRI plates showing; A: mass adherent to right side of uterus (marked by red arrow); B: showing collection in right posterior para-renal space.

Figure 2: A & B: Intraoperative pictures showing mass in the right broad ligament arising from uterus most likely to be a fibroid.
CONCLUSIONS

This is an atypical case of red degeneration of fibroid which on superimposed infection presented as a retroperitoneal abscess, requiring surgical management. In this case could be hematologic or direct spread of infection to the fibroid during puerperal period.

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REFERENCES
