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Case Report

An Unusual Presentation of a Severely Calcified Intramural Leiomyoma and Ovarian Hemangioma in a Postmenopausal Patient Managed By-Hybrid Technique

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Abstract

A 68-year-old postmenopausal woman presented with pain lower abdomen and a palpable mass. Physical examination and radiological findings were suggestive of a large calcified fibroid uterus. Patient was taken up for total laparoscopic hysterectomy with bilateral salpingoopherectomy after all necessary pre-operative work up. To, our surprise, the fibroid was extremely hard, as a result we failed to morcellate or cut it even with high voltage pure cutting current. So, we did a mini-laparotomy to remove the fibroid. Blood loss was minimal. The size of the extracted fibroid was 1 kg. The patient was discharged in stable condition on post-operative day 4. The histopathological examination was suggestive of extensively calcified intramural fibroid and other rare finding of cavernous hemangioma in one of the ovaries. The extensively calcified fibroid in postmenopausal patient and the presence of cavernous hemangioma are rare findings with very few cases reported till date. We managed the case laparoscopically followed by mini laparotomy to retrieve the specimen with the advantages of minimal blood loss, need for blood transfusion and early recovery.

Keywords: Postmenopausal patient, calcified fibroid, cavernous hemagioma, ovary, laparoscopy.

INTRODUCTION

Fibroids are usually a problem in reproductive aged women, but there are reports of fibroids becoming issue even in postmenopausal females [1]. Severely calcified fibroids are a rarity in itself. Ovarian hemangioma is also a rare benign tumor of female genital tract [2]. Mostly this present as an incidental finding at operation or in histopathology report. Our case is unique in many ways and thus the reason to present this case. There was presence of postmenopausal intramural fibroid which was extensively calcified, there was cavernous hemangioma in one of the ovaries, it was managed laparoscopically followed by a mini- laparotomy to deliver the hard fibroid. The blood loss was minimal, there was no need for any blood transfusion and patient had optimal post-operative period.

CASE

A 68-year-old postmenopausal woman presented with pain abdomen and a palpable mass since last 15-20 days in Sir Ganga Ram Hospital, New Delhi. Pain abdomen was dull aching in nature. There was no history of postmenopausal bleeding, discharge per vaginum, loss of appetite and weight. She was a known case of diabetes mellitus type 2, hypertension and rheumatoid arthritis since last 6-7 years and was on treatment for the same. On examination, she was average built, her vitals were stable, and there was no pallor, icterus, cyanosis, pedal edema, clubbing or generalized lymphadenopathy. Her central nervous, cardiovascular and respiratory system was within normal limits. Per abdominal examination revealed a hard, non-tender, abdomino-pelvic mass extending uptil 18-20 weeks size gravid uterus. Lower pole of the mass was not palpable with restricted mobility of the mass due to its size. There was no free fluid or any other palpable in the abdomen. Her baseline investigations were within normal limits and contrast enhanced CT scan was done and it was suggestive of large calcified fibroid compressing the bladder. So, after pre anaesthetic check up patient was planned for total laparoscopic hysterectomy with bilateral salpingo-oophorectomy after informed and written consents.

After patient was given general anaesthesia, patient was positioned, cleaned and draped. Abdominal and vaginal examination was done followed by dilatation and curettage and minimal specimen was retrieved and sent for frozen as the protocol. It was reported as fibrocartilage tissue. Uterine manipulation

was not used. Pneumoperitoneum was created using veress' needle and 10 mm supraumblical otiview trocar was placed as the first trocar. Further, ports were placed, 2 5 mm ports on left side and a 10 mm port on right side. The entire abdominal cavity was systematically examined. Upper abdomen was grossly normal and pelvic cavity was suggestive of a very large uterus with fibroid of around 20x20 cm. Bilateral adnexae were normal looking, but left ovary was bulkier than right. A 10 mm tenaculum was used to grasp the uterus and manipulate it from right sided 10 mm port as can be seen in figure 1, but it was difficult to grasp the uterus owing to the hard nature of the fibroid. Bilateral infundibular structures were desiccated and divided followed by bilateral round ligaments and broad ligaments. Bladder was separated from lower uterine surface and bilateral uterine vessels were skelatinized and endosutured. This was followed by desiccation and cutting of bilateral uterine vessels and mackenrodt's ligaments. Vaginal vault was then opened and specimen separated. Owing to the huge size of the mass, decision to morcellate the specimen was taken using Rotocut G1 morcellator using SIII UNIDRIVE motor. But, to our surprise, the morcelator blade only managed to morcellate the part of uterine serosa and musculature, but not the fibroid. The morcellator blade showed sparks and thus it was abandoned. Even 60 watt cutting current was used, in the hope of fragmenting the hard fibroid, but it also failed. So, to deliver the mass we decided to do a mini-laparotomy. Patient stood the procedure well. Total duration of the surgery was 140 minutes (excluding anaesthesia setting time) and blood loss was around 50 ml. The weight of the extensively calcified fibroid was 1000mg, figure-2. All the specimens were sent for histopathological examination. Patient recovered well post-surgery, was allowed orally once fully conscious and catheter was removed after 12 hours. She was discharged on postoperative day 4 and no further problems were noted till the date of reporting this case.

The gross description of the specimen was; multiple morcellated pieces of uterus measured 15x10x1 cm. Definite endometrium was not seen. Cervix measured 3.5x2x1.5 cm and 0.3 cm at the os. A large calcified fibroid was 11 cm in diameter, which was gritty to cut, with multiple irregular grey white tissue pieces? Myometrium attached to it. Bilateral ovaries were 2x2x1cm each and fallopian tubes were 4 cm in length. Microscopic examination revealed attenuated endometrium, myometrium with leiomyoma which showed extensive calcification as seen in figure-3. Cervix showed mild chronic cervicitis. Another interesting finding was one of the ovaries which had findings of cavernous hemangioma, figure-4. Other ovary and bilateral fallopian tube showed no significant abnormality.

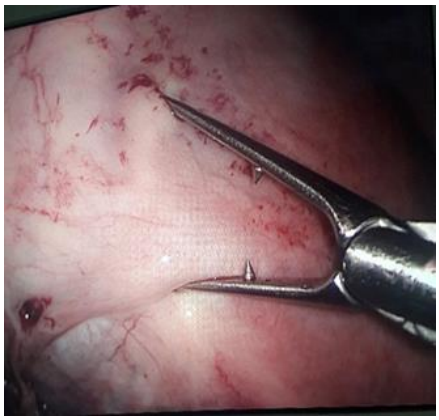

Fig-1: Laparoscopic View of 10 mm Tenaculum Holding the Uterus

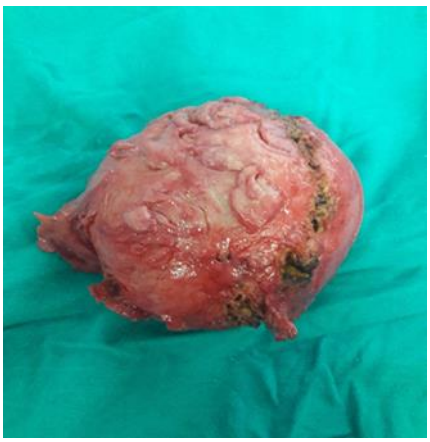

Fig-2: The Specimen of Highly Calcified Fibroid

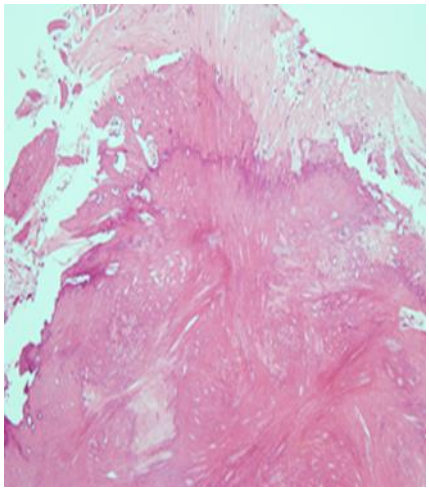

Fig-3: H/E Film Showing Extensive Calcification

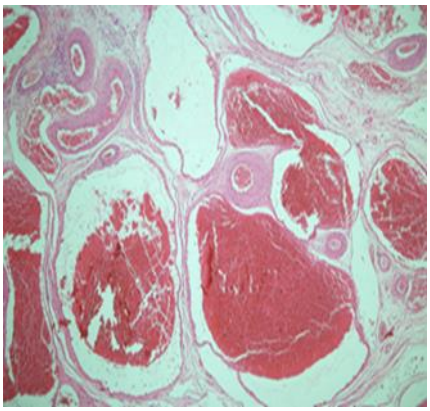

Fig-4: H/E Film Showing Cavernous Hemangioma in Ovary

DISCUSSION

Fibroids arise from abnormal growth of smooth muscles and connective tissue of the uterus with an incidence ranging from 20-50% [3]. It is an extremely rare to detect fibroids in postmenopausal women. Nearly, 70-90% of fibroids decrease in size in postmenopausal age group as the growth of these benign tumors are known to be estrogen dependent [4-6]. Whenever these fibroids overgrow their blood supply, it results in various types of degenerations. Hyaline degeneration is seen in 63% cases and is the commonest followed by myxomatous degeneration in 13% cases, calcification is 8 % cases, mucoid in 6%, cystic in 4%, red degeneration and fatty changes in 3 % cases each [6].

Calcified leiomyomas are usually seen in postmenopausal women. The patients are usually asymptomatic, but occasionally can present with lump abdomen or pain abdomen as in our case. Overtime as the fibroid becomes ischaemic, calcium phosphate and calcium carbonates get deposited in the peripheral portion of the fibroid and these fibroids then can become solidly calcified.

Only few cases of severely calcified fibroids have been reported in postmenopausal patients till date and these are usually of pedunculated subserous types [6, 7]. Finding of an intramural tumor of severely calcified nature as in our case study is an extremely rare occurrence in itself. Kawamura et al suggested that other estrogens and growth factors such as estrone, IGF's, EGF may play a role in the growth of fibroids in postmenopausal women [8]. In an obese patient, peripheral conversion of adrenal androstenedione to estrone by aromatization of fat might stimulate the growth of leiomyomas. Similar kind of cases reported in literature were managed by laparotomy route. Our case of unique, being managed laparoscopically, considerably decreasing the blood loss during the surgery and thus the need for surgery and also the large vertical abdominal incision that would have been required to deliver such a big size mass.

The other incidental finding in our case was of ovarian cavernous hemangiomas. Ovarian hemangioma was first described by Payne *et al.*, in 1869 in a 25-year-old female with bilateral ovarian hemangiomas with abdominopelvic hemangiomatosis [9]. It is an extremely rare benign lesion of the ovary with less than 60 cases reported so far in the literature at any age ranging from 4 years to 81 years [11, 12]. The etiology of ovarian hemangiomas is largely not known and these are considered as hamartomatous malformation or true

neoplasm with pregnancy, infections and other hormonal effects as possible implicated factors [13]. These are usually asymptomatic and present as an incidental mostly finding as in our case. Occasionally, patients present with signs and symptoms simulating ovarian torsion or even epithelial ovarian malignancy and can in such cases lead to radical surgeries. These lesions are usually unilateral and less than 1.5 cm in diameter. Histologically, ovarian hemangiomas are cavernous, capillary or mixed with cavernous hemangioma being most common. These lesions may be associated with non- ovarian lesions like cervical carcinoma, endometrial carcinoma, rectosigmoid carcinoma, tubal carcinomas, and rarely associated with pseudo-meigs syndrome and thrombocytopenia as a part of Kasabach and Meritt syndrome [11, 14, 15]. Surgical removal of the involved ovary, if suspected pre-operatively is the treatment of choice along with evaluation of endometrium and cervix.

CONCLUSION

Fibroids in postmenopausal age group can be a challenge in few cases, both in terms of the presentation, its diagnosis and management. Extensive calcification as one of the form of degeneration, poses a technical challenge in the management, especially hindering minimally invasive approach, and in such cases, hybrid technique can be of extreme benefit for the patient.

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