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Case Report:

An Atypical Case of Pelvic Leiomyomatosis Peritonealis Disseminata

Sohini Bhattacharya, Associate professor,
Shyamapada Pati, Professor and Head
Animesh Naskar, RMO cum Clinical Tutor,
Samiron Dey, Medical officer,
Dept of Gynecology & Obstetrics, North Bengal Medical College, Darjeeling; West Bengal

Address For Correspondence:
Dr. Sohini Bhattacharya,
76, Rashbehari Sarani,
Khelaghor More; Hakimpara,
Siliguri, Darjeeling – 734001, India
E-mail: drsohinibhattacharya@yahoo.co.in

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Abstract:
An exceptional case of Leiomyomatosis peritonealis disseminata which occurred in a perimenopausal woman was mistaken for ovarian malignancy at laparotomy as it had extensive involvement of the pelvic peritoneum without a trace of leiomyoma in uterus and cervix.

Key Words: Leiomyomatosis peritonealis disseminata, peritoneal leiomyomatosis

Introduction:
Leiomyomatosis peritonealis disseminata (also called diffuse peritoneal leiomyomatosis) is a rare, benign entity characterized by presence of innumerable smooth muscle nodules throughout the peritoneal cavity. It occurs mostly in women of reproductive age group who have uterine leiomyomas.(1)

We present a case where leiomyomatosis peritonealis disseminata in a perimenopausal woman occurred involving the pelvic peritoneum extensively without a trace of leiomyoma in uterus and cervix.

Case Report:
A 47 years old woman P_{3+0} attended the gynecology outpatient's department of our hospital with dull aching pain of the abdomen since four months. Her menstrual history revealed no abnormality. The pain had no relation to menstruation. She complained of a loss in weight and appetite for the last four months. The loss in weight was not associated with a rise in temperature. There was no alteration of bowel habit. Her last childbirth was sixteen years ago. She never used any oral contraceptive pills in her lifetime.

On examination, she was found to be moderately anemic, BP – 130/80 mm of Hg. Abdominal and bimanual examination revealed a firm nontender immobile mass in the pouch of Douglas separate from the uterus. The mass appeared to be fixed to the pelvic wall. Respiratory and cardiovascular system revealed no abnormality.

Investigations revealed Hemoglobin – 7gm%, TC WBC – 8600/mm^3 with 68% neutrophils, random plasma glucose -112mg%, serum creatinine – 0.8mg%. Chest X ray was normal. CA-125 was 325IU/ml. Ultrasonography when performed, showed a hypodense mass 83mm×66mm in the pouch of Douglas that appeared to arise from the left ovary. A small amount of ascites was present too. In view of the short history and the clinical and investigation findings, malignant ovarian tumor was diagnosed and laparotomy suggested after transfusion of two units of blood.

Laparotomy revealed a normal sized uterus with slightly cystic ovaries bilaterally. A lobulated highly vascular mass with variegated consistency was seen in the left broad ligament and parametrium. Nodules were seen in the uterovesical pouch and lateral pelvic wall too, none more than 2cm in diameter.1 liter of mucoid ascitic fluid was drained and total abdominal hysterectomy done with bilateral salpingoophorectomy after the left ureter was dissected free to prevent its injury (Fig 1). Nine nodules were dissected out from the uterovesical pouch and lateral pelvic wall (Fig 2). Exploration of the abdomen was performed along with infracolic omentectomy as part of a staging procedure. Neither revealed any deposit.

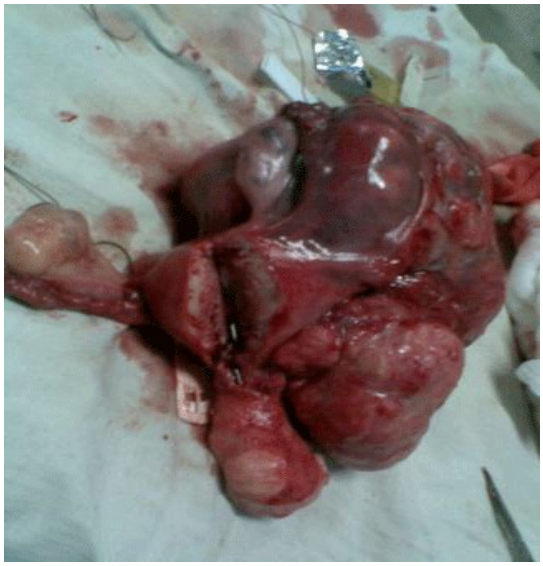

Fig 1: Hysterectomy specimen, with a large leiomyoma that invaded into the broad ligament; uterus being cut open, reveals no leiomyoma

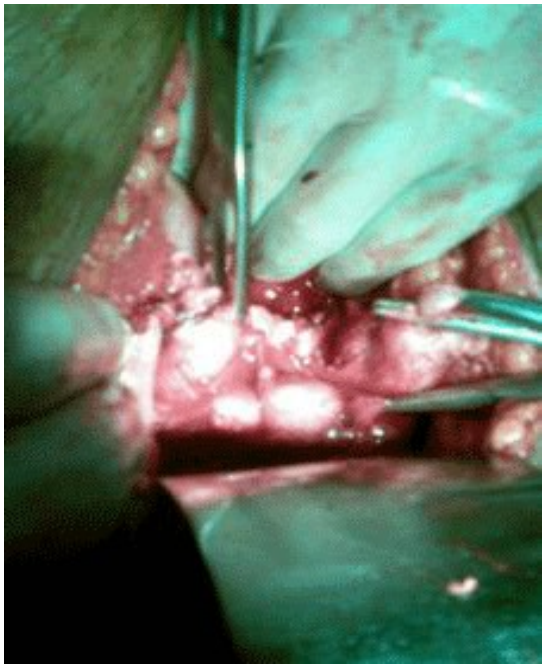

Fig 2: Post hysterectomy vaginal vault being lifted with the Alles tissue forceps reveals two leiomyomas in the uterovesical pouch of peritoneum and a few arising from the lateral pelvic wall

Histopathology showed interlacing fascicles of benign smooth muscle cells with no evidence of malignancy in either of the nodules dissected. Serial sectioning of uterus failed to demonstrate a single leiomyoma.

Other than copious mucoid fluid discharge from the laparotomy wound, that continued till fifth postoperative day and necessitated daily change of dressing, the patient made good recovery. She was discharged with the advice of follow up every four months. One year and three months since her surgery, she is still doing well.

Discussion:

Smooth muscle cells occur sufficiently frequently in the subcoelomic mesenchyme, directly below peritoneal mesothelium predominantly in the region of the uterosacral ligaments and pelvic side walls.(2) Leiomyomatosis peritonealis disseminata is a rare condition characterized by numerous leiomyomas throughout the peritoneal cavity arising from the underlying smooth muscle cells or from metaplasia of submesothelial cells.(1,3) This condition occurs typically in women in the third and fourth decades as was in our case. It may be caused by high estrogen states caused by pregnancy and oral contraceptive use and usually run a benign course with spontaneous regression following withdrawal of ovarian hormone or oophorectomy.(3,4)

Findings on laparotomy overlaps with the appearances of peritoneal carcinomatosis, malignant mesothelioma and primary peritoneal serous carcinoma. It has been suggested that leiomyomatosis peritonealis disseminata should be considered as diagnosis during surgery when patient has coexisting leiomyoma or diffuse leiomyomatosis of uterus with no omental caking or ascites.(1,4,5)

Our case is exceptional since not a single uterine leiomyoma could be identified even after histopathological examination. The presence of ascites and high level of CA 125 was further confusing. Hence a radical surgery was undertaken. Although a conservative approach is recommended for this condition, the reports of malignant changes (about 10%) (3,6) in recent years, have tilted the balance more towards aggressive surgery. When surgical castration is not possible for age or desire for children, a close follow up is recommended.(3)

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