

CASE REPORT

CYSTIC LEIOMYOMA PRESENTING AS AN OVARIAN CYST

Huma Mushtaq, Shahid Jamal, Azhar Mubarak, Urwa Sarwar

Army Medical College Rawalpindi

INTRODUCTION

Leiomyomas are the commonest smooth muscle tumour in the uterus. Not only do they occur at varied sites but they show multiple types of degenerative alterations such as hyalinization, myxoid, carneous (red or hemorrhagic), fatty, calcific and cystic changes [1]. Sometimes cyst may be so large that it can mimic other cystic malignancies. One such case is reported.

CASE REPORT

A 40 year old lady presented with lower abdominal pain, distension and vomiting off and on, for the past two years.

The patient had a past history of pregnancy two years back. Her abdominopelvic ultrasound at that time revealed a large mass, either a fibroid or ovarian mass of 12.7x 8.7 cm (the location of which was not clearly identified) along with a single, alive intrauterine pregnancy (Fig. 1) About one year after an uneventful delivery, the lady got her abdominopelvic ultrasound repeated following recurrent lower abdominal pain. The ultrasound revealed a cystic lesion most likely of ovarian origin in the abdominopelvic region measuring 23.6x 21.3x 19.8 cm. Neither of the two ovaries was visualized and the uterus was normal in size. The lady got admitted for the removal of this mass.

Here on abdominal examination by the gynaecologist, abdominal fullness was felt and fundal height of the cystic mass was of 40 weeks (Fig. 1).

The patient underwent laparotomy. A large cyst full of fluid material was found. Even per-operative the exact site of origin of mass was not possible and it was suspected to be arising from fundus of the uterus. Multiple adhesions with omentum were seen.

Correspondence: Brig Shahid Jamal, Prof of Pathology, Army Medical College, Rawalpindi
Email: sjarjawj@yahoo.com

Received: 24 Dec 2008; Accepted: 30 May 2009

Cystectomy was performed. About 14 liters of fluid was found in the cyst. The gynaecologist suspected it to be a dermoid cyst or an ovarian mass.

The cystic mass was sent for histopathological examination. Gross pathological examination revealed smooth unilocular large cyst measuring 20x14x8 cm. Cut surface was grey white with solid

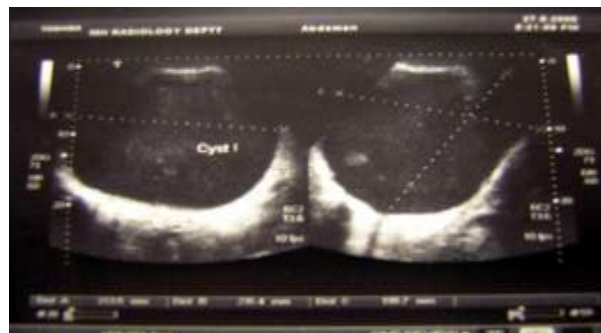


Figure 1: Abdominopelvic sonogram of patient showing a large cystic mass located just above the uterus.



Figure 2: Gross appearance of a large cystic mass measuring 20x14x8 cm.

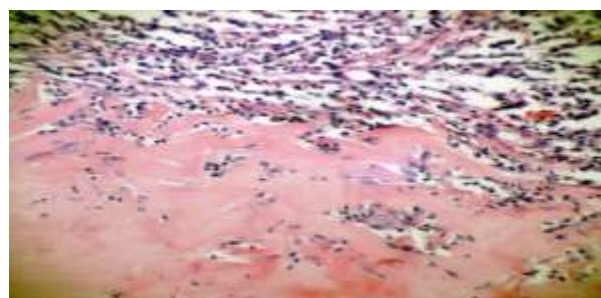


Figure 3: Photomicrograph showing spindle-shaped cells with hyaline degenerative changes. Inflammatory cells are seen towards the lumen (H&E x 100)

whorled areas. Maximum wall thickness was 2 cm (Fig. 2). Microscopic examination of the cystic mass showed a benign tumour with degenerative changes. There were interlacing fascicles of smooth muscle cells with marked oedema. The investing stroma was minimal and showed focal hyalinization and areas of cystic degeneration. The final diagnosis of a uterine leiomyoma with marked cystic degeneration was given (Fig. 3).

DISCUSSION

Uterine leiomyomas are the most common of all gynaecological neoplasms, with prevalence of approximately 25% in women above 30 years of age and of greater than 40% in women above 40 years [1]. These are benign tumours comprising of smooth muscle and varying amount of fibrous connective tissue. Their common locations include submucosa, intramural or subserosa. Subserosal leiomyomas may be pedunculated and simulate adnexal masses [2, 3].

As leiomyomas enlarge, they may outgrow their blood supply. With decreasing arterial blood supply to the myoma, more connective tissue is replaced with an acellular hyaline matrix. This matrix may undergo further myxoid degeneration to a soft gelatinous mass with increasing ischaemia. Finally, necrosis may continue with liquefaction of the tissue, leading to cystic degeneration [1]. Other types of degenerative changes include hyaline, myxoid, red degeneration and dystrophic calcification [4]. Hyalinization is the most common type of degeneration found in 60% of the tumours [5].

Pedunculated subserosal leiomyomas can mimic ovarian tumours, endometriomas and

dermoid cyst. The leiomyomas are generally hormone sensitive, with rates of growth related to oestrogen and progesterone receptor levels [6-8]. During pregnancy (as in this case) estrogen levels increase and the uterus stretches, interrupting the arterial blood supply to the fibroids which causes infarction, cystic degeneration or both.

In conclusion, recognition and diagnosis of cystic leiomyoma is important, as these benign tumours can mimic ovarian carcinomas, dermoid cysts and less commonly endometriomas. The knowledge of differential diagnosis is important because they may effect the management of patient.

REFERENCES

1. Jeffrey M, Goldberg MD, Timothy J, Tausch MD. Complete cystic degeneration of a large leiomyoma. *J Gynecol Surg* 2008; 24: 125.
2. Murase E, Siegelman ES, Outwater EK, Perez-Jaffe LA, Tureck RW. Uterine leiomyomas: histopathologic features, MR imaging findings, differential diagnosis, and treatment. *Radiographics* 1999; 19:1179-97.
3. Williams PL, Laifer-Narin SL, Ragavendra N. US of abnormal uterine bleeding. *Radiographics* 2003; 23:703-18.
4. Prayson RA, Hart WR. Pathologic considerations of uterine smooth muscle tumors. *Obstet Gynecol Clin North Am* 1995; 22: 637-57.
5. SCA Low, Chong CL. A case of cystic leiomyoma mimicking an ovarian malignancy. *Ann Acad Med Singapore* 2004; 33: 371-4.
6. Yarwood RL, Arroyo E. Cystic degeneration of a uterine leiomyoma masquerading as a postmenopausal ovarian cyst: a case report. *J Reprod Med* 1999; 44: 649-52.
7. Reddy NM, Jain K, Gerscovich EO. A degenerating cystic uterine fibroid mimicking an endometrioma on sonography. *J Ultrasound Med* 2003; 22:973-6.
8. Robboy SJ, Bentley RC, Butnor K, Anderson MC. Pathology and pathophysiology of uterine smooth-muscle tumors. *Environ Health Perspect* 2000; 108:779S-84S.