Benign mullerian type cyst of the uterus in a perimenopausal woman

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ABSTRACT

A perimenopausal patient presented with a history of irregular vaginal bleeding. Clinical examination revealed lower abdominal mass, and the pre operative diagnosis was an ovarian cyst. At laparotomy the ovaries and tubes were normal, and the cyst was anatomically attached to the uterus with a short pedicle. There was no obvious sign of malignancy at laparotomy. The histopathology of the cyst was a benign Mullerian type cyst. Bilateral tubal ligation performed at the same time revealed normal fallopian tubes. The patient was followed up 6 weeks and 6 months later, and she remains symptom free. The unusual anatomical location of the cyst is discussed.

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Benign cysts of Mullerian type present as pelvic mass in perimenopausal women mimicking ovarian malignancy. Mesenteric and retroperitoneal cysts of Mullerian type are reported, and their precise embryonic origin is obscure. Although Mullerian type cysts are benign in nature, a malignant component has to be searched for and complete excision with careful histologic examination should be performed.

Case Report. A 45-year-old woman, Para 16 was admitted for laparotomy for ovarian cyst. She presented to the Gynecology clinic with symptoms of one episode of vaginal spotting of 2 days duration after normal menstrual periods. She did not give history of abdominal pain. She was using intrauterine device for contraception for the past 5 years. She gave history of regular menstruation every 30 days, flow lasting 4 days with mild dysmenorrhea. There was no other significant past personal or family history.

Examinations of the cardiovascular and respiratory systems were normal. Breasts were normal on palpation. There was a mass palpable in the lower abdomen; approximately 18 weeks size pregnant uterus. The mass was mobile and non-tender. The cervix was healthy on speculum examination, and the intra uterine device was removed. A pap smear of the cervix was performed. On bimanual examination, the uterus was normal size and the mass was palpable in the left adnexa separately. It was not tender. An ultrasound of the pelvis and abdomen was carried out. Transabdominal ultrasound of the pelvis showed a normal uterus with the intrauterine device in situ and a clear cyst in the pouch of Douglas measuring 11cm x 7 cm. The cyst appeared to arise from the left ovary and the other ovary was not visualized well. Tumor markers carried out preoperatively were Alpha-fetoprotein 2Kiu/L (normal); Serum CEA 2.3 microgram/L; CA 125= 16kiu/L. A pap smear of the cervix revealed no malignant cells. The other routine pre operative investigations like complete blood count, renal and liver function tests were normal. She was consented for laparotomy and possible hysterectomy and bilateral salpingo oophorectomy. At laparotomy, the uterus and both ovaries and both tubes were normal

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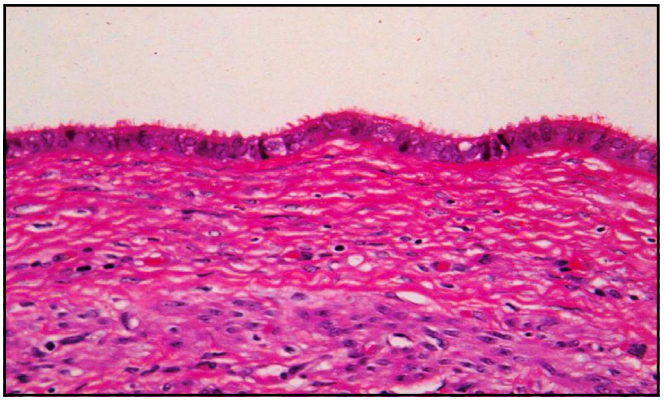

Figure 1 - Single layer of ciliated cuboidal epithelium lining of the cyst wall.

and there was a clear cyst arising from the fundus of the uterus with a short pedicle of 0.5cm. The cyst was 10 cms in diameter with hemorrhagic fluid and there were some filmy adhesions to the pelvic side wall and bowel. The adhesions were released, and the cyst was removed after clamping the pedicle. Rest of the abdominal viscera and omentum were normal. There were no ascites. Ligation of both tubes was carried out by modified Pomeroy method. Patient recovered and was allowed home on the 5th postoperative day. She was followed up after 6 months and she remained symptom free.

Pathological findings. The cyst weighed 450gms. The cyst contained hemorrhagic fluid with unilocular lining, and the cyst wall was composed of fibrous tissue and smooth muscle. The cyst was lined by ciliated tubal type of epithelium with papillary folds. There was no sign of malignancy, and the histopathology diagnosis was a benign Mullerian type cyst (**Figure 1**). The histology of the fallopian tubes was normal.

Discussion. The cyst described herein is distinguished by the close histologic similarity of both its epithelial lining and well formed muscularis to that of the normal fallopian tube. Epithelial structures that occur in women, on or beneath the visceral or parietal peritoneum, in the retroperitoneal lymph nodes, or in the soft tissues of the pelvis and lower abdomen, with differentiation typical of the lining of the female genital tract, have generally been termed Mullerianosis.[1] The case reported here is a type of urogenital cyst derived from the vestiges of the embryonic urogenital apparatus. They may be subclassified into pronephric, mesonephric, metanephric and Mullerian types.[2] They may be unilocular, multilocular, are characteristically single, thin walled and contain clear serous fluid of low specific gravity. Their walls consist of varying quantities of fibrous tissue and smooth muscle, and their epithelial linings are variously simple cuboidal, columnar, or ciliated and pseudostratified.

The cyst described herein is distinguished by the close histologic similarity of its epithelial lining and muscularis to that of the normal fallopian tube. Mullerian cysts of the nature described here are generally reported in the retroperitoneum and mesentery, though rare. Peralta et et al reported 3 cases of benign retroperitoneal cysts of Mullerian type in perimenopausal and postmenopausal women and all of them presented as pelvic masses.[3] A Mullerian cyst of the mesentery was reported by Lee et al[4] and Harpaz and Gellman[5] reported a urogenital mesenteric cyst with fallopian tube features. The other possible differential diagnosis would be cystic endosalpingiosis, but there were no tumor like masses with intrusion into subperitoneal connective tissue or the uterus. This case does not fit with the histology of multilocular peritoneal inclusion cysts where the lining cells are typically mesothelial and do not have cilia and they rarely contain smooth muscle fibres. Turning to the present case the histologic features of the cyst epithelium were clearly mullerian. A frozen section was not carried out as the cyst was uterine origin at laparotomy and looked simple with no clinical evidence of malignancy. Since the fallopian tubes and the remainder of her genitourinary tract were normal, the possibility of ectopic fallopian tube is unlikely. A Mullerian type cyst of apparent uterine origin anatomically with healthy fallopian tubes is reported for the first time in English literature to the best of our knowledge.

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