In The Name of God
BENIGN PELVIC CYSTS AFTER HYSTERECTOMY

PROFESSOR: DR ATAOLAH GHAHIRI

BY DR ZAHRA NIAKAN, SAMANE JAHA
Case 1  (17.1.1398)

- 78yrs, G9, L6 (NVD) Ab3
- Lmp: TVH 20 YEARS AGO
- Cc: pelvic mass (sonography)
- PI: A 78-year-old woman, who admitted to our clinical department with a history of urgency and frequency for 1 year ago.
- PMH: DM, HTN, HLP, hypothyroidism
history

- PSH:TVH,CURETTAGE*2(Abortion)
- DH:levothyroxine Daily,metformin 500 daily,losartan-H Daily,Amlodipine BD
- DS:negative
- PH/E:
  - V/S: BP:130/70  PR: 90  RR: 16  T:36.5 Oral
  - Cardiac & pulmonary exam : nl
  - Abdomen: nl
  - Vaginal exam and bimanual exam : mass 4-5 cm in RT ADNEX without tenderness,and seems mobile.
KIDNEY AND URINARY TRACT SONOGRAPHY

Both kidneys are normal,

Bladder is normal Without any stone or hydronephrosi.

incidental finding: hypoechoic lesion about 54*42mm in right adnex
TVS  15.12.97

- previoud hysterectomy
- athrophic and small ovaries
- a solid mass (47*41mm) with well defined margin and central multicystic area in RT ADNEX
- Internal vascularity in color Doppler sonography
- no free fluid in pelvic cavity
TVS
m.r.i of the pelvic without contrast

- 50*33*50mm Rt. side pelvic cavity well defined heterogenous SI mass lesion is seen.

- Evidence of previous hysterectomy is seen.

- Ovarian mass is in DDX with GIST.

Conclusion: Rt.side pelvic mass (ovarian mass versus GIST.)
Lab data

17.7.97
- Cbc: wbc:6200 neut:60% hb:12.6 plt:224000
- LFT: NL
- LDH:346
- CREAT:1
- U/A: NL
- TSH:4.02

aFP:4.02
CEA:2.47
ROMA:20.97
CA19-9:10.6
CA125:28.59
Management:

- **SURGERY:**
  LAPAROTOMY RIGHT SALPINGO OOPHORECTOMY

- **FROZEN:**
  STROMAL (THECOMA OR FIBROMA)

- **DEFINITIVE DIAGNOSIS:**
  DUE TO PATHOLOGY
Case report

- A 58-year-old woman E2 RX.
- Laparoscopic hysterectomy because of a leiomyoma Six years ago
- TVS: hysterectomy, a 3.3-cm tumor was detected in the vaginal cuff
- During a regular examination, although she experienced no symptoms due to the cyst. Ultrasound
- MRI: a hypoechoic cyst with scattered echogenic reflectors
Analysis of adnexal masses requiring reoperation following hysterectomy

Department of Obstetrics and Gynaecology, SRM Medical College Hospital & Research Centre, Potheri, Tamilnadu, India

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*Correspondence:
Dr. Karthiga Prabhu J.,
E-mail: j.karthigaprabhu@gmail.com

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### Table 3: Ultrasound and operative findings.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>No. of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ultrasound findings</strong></td>
<td></td>
</tr>
<tr>
<td>Simple cyst</td>
<td>3</td>
</tr>
<tr>
<td>Multiloculated cyst</td>
<td>4</td>
</tr>
<tr>
<td>Complex cyst</td>
<td>2</td>
</tr>
<tr>
<td>Heterogenous mass</td>
<td>1</td>
</tr>
<tr>
<td><strong>Operative findings</strong></td>
<td></td>
</tr>
<tr>
<td>Size of cyst</td>
<td></td>
</tr>
<tr>
<td>&lt;5 cm</td>
<td>4</td>
</tr>
<tr>
<td>5-10 cm</td>
<td>4</td>
</tr>
<tr>
<td>&gt;10cm</td>
<td>2</td>
</tr>
<tr>
<td>Pelvic adhesions</td>
<td>6</td>
</tr>
<tr>
<td><strong>Route of reoperation</strong></td>
<td></td>
</tr>
<tr>
<td>Laparoscopy</td>
<td>7</td>
</tr>
<tr>
<td>Laparotomy</td>
<td>3</td>
</tr>
<tr>
<td><strong>Surgery performed</strong></td>
<td></td>
</tr>
<tr>
<td>Unilateral ovariectomy</td>
<td>6</td>
</tr>
<tr>
<td>Bilateral ovariectomy</td>
<td>2</td>
</tr>
<tr>
<td>Ovariectomy with gastric bypass</td>
<td>1</td>
</tr>
<tr>
<td>Surgery + end to end anastomosis + diverting colostomy</td>
<td>1</td>
</tr>
<tr>
<td><strong>Histopathology</strong></td>
<td></td>
</tr>
<tr>
<td>Follicular cyst</td>
<td>2</td>
</tr>
<tr>
<td>Simple serous cyst</td>
<td>2</td>
</tr>
<tr>
<td>Endometriotic cyst</td>
<td>2</td>
</tr>
<tr>
<td>Haemorrhagic corpus luteal cyst</td>
<td>3</td>
</tr>
<tr>
<td>Signet ring cell carcinoma</td>
<td>1</td>
</tr>
</tbody>
</table>

### Table 2: Previous surgery details.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>No. of cases</th>
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</thead>
<tbody>
<tr>
<td><strong>Age at hysterectomy</strong></td>
<td></td>
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<tr>
<td>&lt;40 years</td>
<td>6</td>
</tr>
<tr>
<td>40-50 years</td>
<td>3</td>
</tr>
<tr>
<td>&gt;50 years</td>
<td>1</td>
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<tr>
<td><strong>Route of hysterectomy</strong></td>
<td></td>
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<tr>
<td>Abdominal</td>
<td>8</td>
</tr>
<tr>
<td>Vaginal</td>
<td>2</td>
</tr>
<tr>
<td><strong>Previous indication for hysterectomy</strong></td>
<td></td>
</tr>
<tr>
<td>Dysfunctional uterine bleeding</td>
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</tr>
<tr>
<td>Fibroid</td>
<td>5</td>
</tr>
<tr>
<td>Adenomyosis</td>
<td>2</td>
</tr>
<tr>
<td>Prolapse</td>
<td>1</td>
</tr>
<tr>
<td><strong>Unilateral oopherectomy</strong></td>
<td>8</td>
</tr>
<tr>
<td><strong>Hysterectomy performed when</strong></td>
<td></td>
</tr>
<tr>
<td>&lt;3 years</td>
<td>4</td>
</tr>
<tr>
<td>3-5 years</td>
<td>3</td>
</tr>
<tr>
<td>&gt;5 years</td>
<td>3</td>
</tr>
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</table>
ABSTRACT

**Background:** Generally, we would like to preserve ovaries during hysterectomy for benign conditions. Many of them come back with ovarian cysts and pain abdomen. Recently there were ten cases of residual ovaries requiring surgery during a year period which made us analyze these cases.

**Methods:** This retrospective descriptive analysis was conducted in SRM Medical College Hospital and Research Centre. Data about residual ovaries requiring surgery were retrieved from the medical records department and operation records and analyzed.

**Results:** There were ten cases of residual ovaries from January 2015 to December 2015 requiring surgery. In 70% of patients, residual ovary syndrome occurred within 5 years of hysterectomy. Majority (80%) of them were following abdominal hysterectomy. The most common symptom among these patients was chronic pelvic pain. Pelvic adhesions were present in most of the cases. Follicular cyst and hemorrhagic corpus luteum were the commonest pathological findings in the residual ovaries (50%). There were two cases of endometriotic cyst and a case of secondary malignant ovarian tumor with primary growth from stomach in a 40 year old woman for whom hysterectomy was performed five years ago for adenomyosis.

**Conclusions:** When the ovaries are preserved the woman should be properly counseled and should undergo periodic clinical and ultrasonographic follow-up.

**Keywords:** Residual ovaries, Signet ring cell carcinoma, Ovarian tumour, Endometriotic cysts, Haemorrhagic corpus luteum
Adnexal masses requiring reoperation in women with previous hysterectomy with or without adnexectomy.


Shiber LD<sup>1</sup>, Gregory EJ<sup>2</sup>, Gaskins JT<sup>3</sup>, Biscette SM<sup>2</sup>. 

**Author information**

1University of Louisville School of Medicine, Division of Minimally Invasive Gynecologic Surgery, Department of Obstetrics and Gynecology, Louisville, KY 40202, United States. Electronic address: lindashiber@gmail.com. 2University of Louisville School of Medicine, Division of Minimally Invasive Gynecologic Surgery, Department of Obstetrics and Gynecology, Louisville, KY 40202, United States. 3University of Louisville School of Public Health and Information Sciences, Department of Bioinformatics and Biostatistics, Louisville, KY, United States.
OBJECTIVES:
To characterize the etiologies of adnexal masses requiring reoperation in women with prior hysterectomy and to compare incidence and pathology of these masses based upon whether total, partial or no adnexectomy was performed at time of hysterectomy. In addition, the average time interval between hysterectomy and reoperation for a pelvic mass is ascertained.

STUDY DESIGN:
A single-institution, retrospective review spanning 10 years. Using pertinent ICD-9 and CPT codes, women with a history of hysterectomy who underwent a subsequent surgery for an adnexal or pelvic mass were identified.

RESULTS:
Over ten years, 250 women returned for gynecologic surgery due to a pelvic mass after prior hysterectomy. Most had undergone hysterectomy only (76%). 64.8% of these women had masses of ovarian origin, 12.4% were tubal in origin, 20% of masses involved both the ovary and tube and a small proportion arose from non-gynecologic processes. 18% of these women had a malignancy; 80% were ovarian and 6.7% originated from the fallopian tube. Patients having had a prior hysterectomy and bilateral salpingectomy returned soonest (p<0.0001) and patients with malignant masses returned after the longest time intervals (HR 0.41, p<0.0001).

CONCLUSIONS:
The majority of adnexal masses requiring reoperation after hysterectomy are gynecologic in origin, benign, and arise from the ovary. Women returning with malignant masses after hysterectomy present after longer time intervals.
Analysis
Analysis

![Graphs showing median interval for benign and malignant masses, as well as different index surgery types.]

- Median Interval (Years)
- Mass Type: Benign, Malignant
- Index Surgery Type: Hyst, Hyst+USO, Hyst+BSO, Hyst+BS
Laparoscopic Resection of an Epidermal Inclusion Cyst at the Vaginal Cuff

Department of Obstetrics and Gynecology, Nissay Hospital, Osaka City, Japan
Department of Pathology, Nissay Hospital, Osaka City, Japan

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Michiko Kodama MD, Kenji Hirota MD, PhD, Masato Oshima MD, PhD, Takao Funato MD, PhD
Abstract
An epidermal inclusion cyst rarely occurs at the vaginal cuff, whereas it sometimes develops at the vulva and the site of episiotomy due to entrapment of the squamous epithelium. We present the case of a 58-year-old woman who developed an epidermal cyst at the vaginal cuff 6 years after laparoscopic hysterectomy. Although we could not make a precise diagnosis at imaging before the operation, the cyst was completely removed at laparoscopic surgery without any complications. To our knowledge, this is the first report of an epidermal inclusion cyst at the vaginal cuff that was successfully treated at laparoscopic surgery. Laparoscopic surgery was useful in magnifying the surgical field and in delicate manipulation of various devices to resect this pelvic floor tumor that required adhesiolysis of surrounding organs.
Imaging

imaging (MRI) revealed that the content of a unilocular homogeneous cyst showed slightly high

Laparoscopic Resection of an Epidermal Inclusion Cyst
Histologic features:
The cyst was lined with squamous epithelium and filled with desquamated cells that contained keratin.
Large Epidermal Inclusion Cyst Presenting as a Pelvic Mass
Recurrence of endometriosis after hysterectomy

1Division of Reproductive Medicine, Department of Obstetrics and Gynecology, University of South Alabama College of Medicine, Mobile, Alabama, USA.
2Baylor College of Medicine, Houston, Texas, USA.
3Department of Obstetrics and Gynecology, Tanta University, Egypt.
4Department of Obstetrics and Gynecology, King Abdulaziz University, Jeddah, Saudi Arabia.
5Department of Obstetrics and Gynecology, Indiana University, Indianapolis, USA.
6Springhill Memorial Hospital, Mobile, Alabama, USA. Facts Views Vis Obgyn, 2014, 6 (4): 219-227
Objective
Persistent or recurrent pain after hysterectomy is one of the most frustrating clinical scenarios in benign gynaecology. We attempt to review the current evidence regarding the recurrence of pelvic pain after hysterectomy for endometriosis. The impact of ovarian conservation, type of hysterectomy and the extent of surgical excision were analysed.

Methods
Peer reviewed published manuscripts in the English language in the period between 1980 and 2014 were reviewed using Pubmed and science direct regarding the incidence, causes and recurrence of endometriosis.

Results:
Sixty-seven articles were identified. Incomplete excision of endometriosis is the most predominant reason in the literature for the recurrence of endometriosis, and the type of Hysterectomy affects the recurrent symptoms mainly by impacting the extent of excision of the lesion. Ovarian cyst drainage is associated with the highest rate of ovarian cyst reformation within three to six months after surgery. The use of hormone replacement therapy is associated with recurrence of pelvic pain in 3.5% of cases. No studies addressed the recurrence of endometriosis after standard vs robotic assisted hysterectomy.

Conclusion:
A high recurrence rate of 62% is reported in advanced stages of endometriosis in which the ovaries were conserved. Ovarian conservation carries a 6 fold risk of recurrent pain and 8 folds risk of reoperation. The decision has to be weighed taking into consideration the patient’s age and the impact of early menopause on her life style. The recurrence of endometriosis symptoms and pelvic pain are directly correlated to the surgical precision and removal of peritoneal and deeply infiltrated disease. Surgical effort should always aim to eradicate the endometriotic lesions completely to keep the risk of recurrence as low as possible.
Development of Endometriosis in patients who underwent hysterectomy for endometriosis

- There have been few reported cases of the development of endometriosis after hysterectomy in patients on HRT with no previous history of endometriosis (Goumenou et al., 2003; Bellina and Schenck, 2000). These cases are exceedingly rare and the mechanism is unknown.
Peritoneal endometriosis visualized along the course of left ureter causing persistent pain after laparoscopic hysterectomy.

Vaginal vault endometriosis infiltrating deep between vaginal canal and rectum.
Laparoscopic view of adhesions between bowel and pelvic wall in a patient with pelvic endometriosis.

Laparoscopic view of adhesions between ovary and pelvic wall in a patient with pelvic endometriosis.
Thank you for your attention!

Any Questions?