

Management of Asymptomatic Adnexal Cysts

In 2009 the following recommendations were made by a panel of specialists from gynecology, radiology and pathology with subspecialty interests in gynecologic ultrasound (US), general gynecology, gynecologic oncology, reproductive endocrinology, menopause, gynecologic pathology and epidemiology gathered by the Society of Radiologists in Ultrasound in October, 2009 and published in September, 2010.

Subsequently the ANMC Departments of Radiology and Obstetrics and Gynecology agreed to manage asymptomatic adnexal cysts in the following manner.

Definitions/Concepts:

1. Cyst size is determined by maximal single diameter not the average diameter.
2. Perimenopause is a continuum typically occurring at 51 to 53 years of age but as early as 40 and as late as 60 years of age.
3. Postmenopause: one year or more of amenorrhea from the last menstrual period.
 - a. Early or stage I: one to five years
 - b. Late or stage II: >five years; rare ovulation but may have simple cysts up to 1 cm
4. Average size of dominant follicle at ovulation is 2 – 2.4 cm with range of 1.7 -2.8 cm. Therefore simple cysts are considered to be physiologic when <3cm.
5. Simple ovarian cysts:
 - a. Up to 10 cm in any patient has a <1% malignancy rate.
 - b. Up to 84% of surgically removed enlarged ovarian cysts are serous cystadenomas which have so low a rate of malignant transformation as to not warrant close follow up (f/u).
 - c. Simple cysts >10 cm have a 13% incidence of malignancy.
6. Paratubal and paraovarian simple cysts are treated the same as simple ovarian cysts.

RECOMMENDATIONS:

Simple Cysts:

Reproductive age:

1. ≤ 3 cm: may or may not be reported in US report; f/u not warranted
2. >3 & ≤ 5 cm: described almost certainly benign in imaging report; f/u not warranted
3. >5 & ≤ 7 cm: described almost certainly benign in imaging report; f/u at yearly intervals
4. >7 cm: Magnetic resonance (MR) and GYN surgical evaluation since cyst wall may be incompletely evaluated at US

Postmenopausal:

1. ≤ 1 cm: may or may not be described in US report; f/u not warranted

2. >1 cm & ≤ 7 cm: described as almost certainly benign in US report; f/u at 1 year then at longer intervals if not removed.
3. >7 cm: MR and GYN surgical evaluation

Cochrane Database

Although widely used for treating functional premenopausal ovarian cysts, combined oral contraceptives appear to be of no benefit. Watchful waiting for two or three menstrual cycles is appropriate. Should cysts persist, GYN surgical management is often indicated.

Hemorrhagic Cysts: Typically resolve in 8 weeks

Reproductive age:

1. ≤ 3 cm: may or may not describe in US report; f/u not warranted
2. >3 & ≤ 5 cm: described in US report; f/u not warranted
3. >5 cm: described in US report; f/u in 6-12 weeks, preferably during day 3-10 of menstrual cycle

Early postmenopausal:

1. Any size: described in US report and f/u at 6-12 weeks

(With probable but not classic hemorrhagic cysts in the reproductive or early postmenopausal age group follow up at 6-12 weeks to demonstrate resolution. If the cyst does not resolve then either f/u US or MRI to confirm as an endometrioma or dermoid; if not confirmed then GYN surgical evaluation.)

Late postmenopausal:

1. Any size : referred for GYN surgical f/u

Endometrioma:

Reproductive age:

1. Initial f/u at 6-12 weeks to confirm it is not a hemorrhagic cyst then yearly if not removed
 - a. 1% malignant transformation, usually in women >45 years old and in endometrioma >6 cm and almost always >10 cm. 4.5 year average latency period to development of cancer
2. GYN consult

Postmenopausal:

1. Consider GYN surgical evaluation

Dermoid:

Reproductive age:

1. Followed at 6 months then yearly if not removed.
 - a. 0.17 – 2.0% malignant transformation, usually in women >50 years old, typically in masses >10 cm but as small as 3 cm. Average latency period for development of cancer is 15-20 years.
2. GYN consult

Postmenopausal:

1. Consider GYN surgical evaluation

Hydrosalpinx:

1. Follow up as clinically warranted

Peritoneal Inclusion Cyst:

1. Follow up as clinically warranted

Suspicious characteristics:

Multiple thin (<3 mm thick) septations, wall thickening up <3 mm or peripheral nodule without vascular flow by any US method (color, duplex or arterial Doppler) in the reproductive age female should be followed at 6-12 weeks; best at day 3-10 of the menstrual cycle.

Malignant characteristics:

1. Thick septations (≥ 3 mm)
2. Wall thickening ≥ 3 mm
3. Intracystic nodule with internal vascular flow has the highest likelihood of malignancy
4. Additional secondary signs;
 - a. Pelvic ascites
 - b. Peritoneal masses/studding

Summary of Recommendations and Conclusions

The following recommendation are based on good and consistent scientific evidence (Level A):

Although widely used for treating functional premenopausal ovarian cysts, combined oral contraceptives appear to be of no benefit. Watchful waiting for two or three cycles is appropriate. Should cysts persist, GYN surgical management is often indicated.

The following recommendations and conclusions are based on limited or inconsistent scientific evidence (Level B):

- 1) In asymptomatic women with pelvic masses, whether premenopausal or postmenopausal, transvaginal ultrasonography is the imaging modality of choice. No alternative imaging modality has demonstrated sufficient superiority to transvaginal ultrasonography to justify its routine use.
- 2) Specificity and positive predictive value of CA 125 level measurements are consistently higher in postmenopausal women compared with premenopausal women. Any CA 125 elevation in a postmenopausal woman with a pelvic mass is highly suspicious for malignancy.
- 3) Simple cysts up to 10 cm in diameter on ultrasound findings are almost universally benign and may safely be followed without intervention, even in postmenopausal patients.
- 4) Unilateral salpingo-oophorectomy or ovarian cystectomy in patients with germ cell tumors, stage I stromal tumors, tumors of low malignant potential, and stage IA, grade 1–2 invasive cancer who undergo complete GYN surgical staging and who wish to preserve fertility does not appear to be associated with compromised prognosis.

The following recommendations and conclusions are based primarily on consensus and expert opinion (Level C):

- 1) Women with ovarian cancer whose care is managed by physicians who have advanced training and expertise in the treatment of women with ovarian cancer, such as gynecologic oncologists, have improved overall survival rates compared with those treated without such collaboration.
- 2) Most masses in pregnancy appear to have a low risk for both malignancy and acute complications and, thus, may be considered for expectant management.

References:

Management of Asymptomatic Ovarian and Other Adnexal Cysts Imaged at US: Society of Radiologists in Ultrasound Consensus Conference Statement. *Radiology*: Volume 256: Number 3 – September 2010.

Management of Adnexal Masses ACOG Practice Bulletin No. 83. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2007; 110:201–14. (Reaffirmed 2015)

The role of the obstetrician–gynecologist in the early detection of epithelial ovarian cancer. Committee Opinion No. 477. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2011;117:742–6

Well-woman visit. Committee Opinion No. 534. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2012;120:421–4. (Reaffirmed 2016)

Le T, Giede C, Society of Obstetricians and Gynaecologists of Canada (SOGC), Gynecologic Oncologists of Canada (GOC), Society of Canadian Colposcopists (SCC). Initial evaluation and referral guidelines for management of pelvic/ovarian masses. Practice guideline No. 230. *J Obstet Gynaecol Can.* 2009 Jul 01;(230):668-73 (Accessed 7/23/16)

Grimes DA, Jones LB, Lopez LM, Schulz KF. Oral contraceptives for functional ovarian cysts. *Cochrane Database of Systematic Reviews* 2014, Issue 4. Art. No.: CD006134. DOI: 10.1002/14651858.CD006134.pub5.

Approved 6/4/14njm
Reviewed 7/723/16njm