بسم الله الرحمن الرحيم

OVARIAN CYSTS IN POST-MENOPAUSE

dr fahimeh sabet

NATIONAL CLINICAL GUIDELINE

INVESTIGATION AND MANAGEMENT OF OVARIAN CYSTS IN POSTMENOPAUSAL WOMEN

Risk factors for
ovarian cancer

- early menarche and late menopause
- polycystic ovarian syndrome
- nulliparity
- genetic mutations; BRCA 1, BRCA 2; Lynch syndrome
- personal history of breast cancer
- family history of breast or ovarian cancer

- obesity
- smoking
- never having used the oral contraceptive pill
- fertility treatment
- hormone replacement therapy

- To decide on the appropriate management of a postmenopausal ovarian cyst it is necessary to firstly estimate the risk that the cyst is malignant

- This involves checking a serum CA125 and performing an ultrasound

CA125 is raised in over 80% of ovarian cancers and

if a cut-off of 30 u/ml is used, the test has a sensitivity of 81% and specificity of 75%

CA125 will only be raised in 50% of stage 1 ovarian cancers.

US has sensitivity of 89% and specificity of 73% when using a morphology index

TVS provide more detail and greater sensitivity than TAS

Larger cysts may also need to be assessed by TAS

magnetic resonance imaging (MRI), computed tomography (CT) and positron emission tomography (PET) are used for staging once a cytological or histological diagnosis of cancer has been made

Risk of malignancy index should be used to decide which women are managed by a general gynecologist, or by a gynecological oncologist in a cancer center

The best prognosis for women with ovarian cancer is obtained if a laparotomy and full staging procedure is carried out by a gynecological oncologist

RMI = U x M x CA125

M = 1 for premenopausal women
M = 3 for postmenopausal women

CA125 is serum CA125 measurement in u/ml

U = 0
U = 1 (for 1 characteristic)
U = 3 (for 2–5)
Ultrasound scans are scored for each of the following characteristics:
multilocular cyst
bilateral lesions
evidence of solid areas
evidence of metastases
presence of ascites

US morphological
index

Sonographic Morphology Index for Ovarian Tumors

Category	0	1	2	3	4
Volume	<10 cm^3	10–50 cm^3	>50–200 cm^3	>200–500 cm^3	>500 cm^3
Cyst wall structure	Smooth <3 mm thickness	Smooth >3 mm thickness	Papillary projection <3 mm	Papillary projection ≥3 mm	Predominantly solid
Septa structure	No septal	Thin septal <3 mm	Thick septal 3mm–1 cm	Solid area ≥1 cm	Predominantly solid

➢ Conservative therapy

Simple, unilateral ovarian cysts, less than 5 cm , normal serum CA125 level :

The risk of malignancy is less than 1%

Over 50% resolve spontaneously within three month

Conservation with TVS Q3m till 2y

ACOG: TVS Q1y till 3y , CA125 Q1y till 5y

Increase in size or CA 125 level: consider surgical management

These findings suggest that the majority of unilocular ovarian cysts with diameter less than 50 mm are benign and remain unchanged & can be managed expectantly when there is no increase in the ovarian cyst diameter and the serum CA 125 concentration is normal

If a cyst in a menopausal woman is smaller than 5 cm, the patient has no additional “risk factors” such as family history, there is no change seen in the cyst on repeated ultrasound examinations, and CA- 125 antigen assay is negative, one may consider conservative follow-up

surgery in symptomatic cases or those in which there is a family history of ovarian, breast, or colon cancer

Surgical management Aspiration

- Cyst rupture
- sensitivity is poor at distinguishing between benign and malignant tumors(around 25%)
- no role in the management of ovarian cyst in postmenopausal women

- **Laparoscopic oophorectomy**

In Woman not suitable for conservative management, but still have a relatively low risk of malignancy → removal of the ovary intact in a bag without cyst rupture into the peritoneal cavity

prophylactic salpingectomy should be performed as a risk reducing procedure in addition to oophorectomy

Women at intermediate risk : in women with a moderate risk of malignancy index Laparoscopic BSO by a gynecological oncologist in a cancer center

➢ Complete surgery

If an ovarian cancer is discovered at surgery or on histology or in women with a high risk of malignancy index :

laparotomy with midline laparotomy

cytology

hysterectomy + bilateral salpingo-oophorectomy

infracolic omentectomy

Biopsies from suspicious area

bilateral selective pelvic and para-aortic lymphadenectomy

Appendicectomy in all suspected mucinous cystadenocarcinomas

Management algorithm

- **Low risk**

- **Management in a general gynecology unit**
- **Simple cysts less than 5 cm with a NL CA125 level managed conservatively**
- **Conservative management should include US and CA125 every 3 months for two years**
- **If cyst does not fit the above criteria or if the woman requests surgery then laparoscopic oophorectomy is acceptable**

- **Moderate risk**

- **Management in a cancer center by a gynecological oncologist**
- **Laparoscopic bilateral salpingo-oophorectomy is acceptable in selected cases**
- **If a malignancy is discovered then a full staging procedure should be undertaken**

- **High risk**

- **Management in a cancer center by a gynecological oncologist**

Key
recommendations

- Women with a postmenopausal ovarian cyst should have a CA 125 level and transvaginal ultrasound

- Women with a postmenopausal ovarian cyst should have a risk of malignancy index calculated to decide on management

- Simple, unilateral ovarian cysts, <5 cm in diameter can be managed conservatively with monitoring of CA 125 level and ultrasound surveillance

- Aspiration is not recommended for management of postmenopausal ovarian cysts

- Laparoscopic oophorectomy is appropriate management for women with a low risk of malignancy index who do not fit the criteria for conservative management. This may be performed by a general gynecologist

- Consider performing salpingectomy or bilateral salpingo-oophorectomy for women undergoing laparoscopic management of postmenopausal ovarian cysts

- Women with a moderate risk of malignancy index should undergo laparoscopic bilateral salpingo - oophorectomy

- Women with a moderate or high risk of malignancy index should be managed by a gynecological oncologist in a cancer center

Gynecology

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Original Research

Conservative management of unilateral and unilocolor ovarian cysts $\geq$ 10 cm in diameter in postmenopausal women

Mehmet Serdar Oguz[1], Tolga Ecemiş[2,*], Gülçin T. Sarıyıldız[3]

[1] *Department of Obstetrics and Gynaecology, Medicana-Atılım University Hospital, 06510 Ankara, Turkey*

[2] *Obstetrics and Gynaecology Specialist, Private Clinic, 06510 Ankara, Turkey*

[3] *Department of General Surgery, Medicana-Atılım University Hospital, 06510 Ankara, Turkey*

*Correspondence: info@tolgaecemis.com; tolgaecemis@hotmail.com (Tolga Ecemiş)

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