The Shrewsbury and Telford Hospital NHS Trust

Ovarian Cysts in Postmenopausal Women
V5

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Care Group : Women and Children's
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Comments : Minor Update to surgical management of ovarian cyst in low risk postmenopausal women.

For Triennial Review

Version	Date	History	Ratified By	Full Review Date
1	15/10/2015	New Guidance	Gynae Governance	June 2018
2	1703/17	Update to reflect new RCOG guidance	Gynae Governance	November 2019
3	November 2019	Reviewed by Dr Banchhita Sahu - no changes	Dr SAHU	November 2022
4	January 2022	Update in surgical management of low risk malignancy	Halimah Alazzani ST5/6 O&G Yazid Jibrel Spr O&G Gynae Governance November 2021	January 2025
5	21st January 2025	Reviewed- no changes	Gynae/ Fertility Clinical Governance	January 2028

1.0 Introduction

In light of ever progressing advances in imaging technique, large numbers of ovarian cysts are now being discovered that will have far reaching implications not only for morbidity and mortality, but also for resource allocation RCOG GTG No 34

Approximately 20% of healthy postmenopausal women will have some form of abnormal ovarian morphology RCOG GTG No 34

Ovarian cancer is the 5th most common cancer among women in the UK (accounting for 4% of all new cases of cancer in females) Cancer Research UK

Ovarian cancer incidence correlates strongly to increasing age (in the UK between 2009 and 2011, an average of 29% of cases were diagnosed in women aged 75 years and over, and 75% in women aged 55 and over) Cancer Research UK

2.0 Aim

Due to all the above factors, it is vitally important to have clear, evidence based guidelines for SaTH clinicians in the management of postmenopausal ovarian cysts

3.0 Objectives

To facilitate timely investigation and treatment of postmenopausal ovarian cysts, Including correct identification of tertiary referral pathways, to optimise patient care

4.0 Definitions

For the purposes of this guideline a woman is assumed to be postmenopausal if she has had no period for at least 12 consecutive months or is over the age of 50 if she has had a hysterectomy RCOG GTG No 62

5.0 Process

5.1 Clinical History

All women should have a detailed history taken with emphasis on defining risk of malignancy and medical/surgical morbidity to aid MDT decision making.
Particular risk factors to establish in the history with regards to malignancy risk profiling include:

- **Age** - risk increases with increasing age Cancer Research UK
- Identification of **'Red Flag Symptoms'** - these are particularly relevant in women above 50 years of age NICE CG122

- Persistent abdominal distension (women often refer to this as 'bloating')particularly if more than 12 times per month
- Feeling full (early satiety) and/or loss of appetite, particularly if more than 12 times per month
- Pelvic or abdominal pain, particularly if more than 12 times per month
- Increased urinary urgency and/or frequency, particularly if more than 12 times per month
- Unexplained increase or decrease in weight
- Symptoms suggesting irritable bowel syndrome in a woman over 50 (IBSrarely presents for the first time in women of this age)

- **Identification of possible hereditary risk factors** Cancer Research UK

1. Family or personal history of:
   - BRCA1 gene mutation (65% risk)
   - BRCA 2 gene mutation (35% risk)
   - Lynch Syndrome (7% risk)
   - Peutz-Jeghers Syndrome (21% risk)
2. Family or personal history of cancer of the:
   - Ovaries
   - Breast
   - Liver
   - Prostate
   - Stomach/bowel
   - Connective tissues
   - Skin - Melanoma

- **Medical history** Cancer Research UK
1. Diabetes mellitus
   - 25-50% increased risk from disease
2. Increased BMI above 28

- **Smoking history** Cancer Research UK
Accounts for 3% ovarian cancers in the UK

- **Obstetric history** Cancer Research UK
1. Reduced number of pregnancies
2. Reduced rates of breastfeeding

- **Gynaecological history** Cancer Research UK
1. HRT use
   - Accounts for 1% ovarian cancers in the UK
   - Oestrogen only HRT increases risk by 53% after 5+ years
   - Oestrogen-progesterone HRT increases risk by 17% after 5+ years
2. Endometriosis (27-80% increased risk)
3. History of subfertility and fertility treatment (increased risk associated with reduced pregnancy and breastfeeding rates and ovulation induction)

5.2 Clinical Examination

- Full examination needs to include BMI, abdomen, pelvis and breast, including lymph nodes (in particular groin, axillary and supraclavicular)
- In postmenopausal women presenting with acute abdominal pain, the diagnosis of an ovarian cyst accident should be considered (e.g. torsion, rupture, haemorrhage) RCOG GTG No 34

5.3 Investigation RCOG GTG No 34

TV Grey Scale USS

- A transvaginal pelvic ultrasound is the single most effective way of evaluating ovarian cysts in postmenopausal women.
- Transabdominal ultrasound whilst it can provide supplementary information (e.g. if the mass extends outside the TV field) should not be used in isolation.
- Cystic lesions in the postmenopausal ovary should only be reported as ovarian cysts, and considered significant, if they are 2 cm or more in size.
- Cystic lesions smaller than 2 cm are clinically inconsequential and it is at the discretion of the reporting clinician whether or not to describe them in the imaging report as they do not need follow-up.

CA125

Whilst a very high CA125 value may assist in making a diagnosis of ovarian malignancy, the nonspecific nature of the test means that:

- It should never be used in isolation
- A normal value does not exclude an ovarian malignancy healthy men and women.
- The use of serum CA125 is well established, being raised in over 80% of epithelial ovarian cancer cases, but not in most primary mucinous ovarian cancers.
- Non-malignant gynaecological conditions such as pelvic inflammatory disease, fibroids, acute events in benign cysts (e.g. torsion or haemorrhage) and endometriosis can all result in an increased CA125 level.
- Numerous benign non-gynaecological conditions that cause peritoneal irritation (tuberculosis, cirrhosis, ascites, hepatitis, pancreatitis, peritonitis, pleuritis) and other primary tumours that metastasise to the peritoneum (breast, pancreas, lung, and colon cancer) can also cause an elevated CA125.

All postmenopausal cysts should be assessed using:

1. **TV grey scale sonography**
2. **CA125**

- The findings from the above should be used to calculate the patients' risk of malignancy index (RMI) to determine further management (see appendix 1)

- RMI is the most utilised, widely available and validated effective triaging system for women with suspected ovarian cancer.

- A systematic review of diagnostic studies concluded that the RMI was the most effective for women with suspected ovarian malignancy. The pooled sensitivity and specificity in the prediction of ovarian malignancies was 78%(95% CI 71-85%) and 87% (95% CI 83-91%) respectively for a RMI cut-off of 200.

- Therefore, it is important to note that Low RMI does not exclude the risk of ovarian cancer. As per the RCOG guideline on management of postmenopausal ovarian cysts. Currently there is no available tests to offer 100% specificity and sensitivity. It is also difficult to correlate a particular RMI I score to an absolute risk of malignancy.

- However, women could be counselled regarding RMI scores:

  RMI < 25 = Low risk of cancer < 3%
  RMI 25- 250 = Moderate risk of cancer 20%
  RMI >250 = High risk of cancer 75%

- When ovarian malignancy is considered likely based on clinical assessment and a RMI score greater than or equal to the threshold of 200, cross- sectional imaging in secondary care, in the form of a CT scan of the abdomen and pelvis, is indicated to help assess the extent of disease and to help exclude alternative diagnoses, with onward referral to a gynaecological oncology multidisciplinary team.

- There is no current evidence based routine role for:
  - Tumour markers
  - Other imaging modalities as primary investigation tools

- MRI imaging should be considered as second-line for characterisation of indeterminate ovarian cysts on TV grey scale USS

5.4 Initial Management (Appendix 2)

- RCOG recommends that any patient with an RMI $\geq$ 200 should be referred to the Gynaecology MDT. The MDT will determine if the patient's management will be referred back to the referring clinician with advice, or if management will be taken over by the Oncology team. If it is the latter, the Oncology team will plan management at the MDT and contact the patient directly.

- Any patient with an RMI < 200 can be managed by a general gynaecologist. Management may be in the form of conservative observation or surgical intervention and joint decisions will be made with the patients after they have had the opportunity to assess the risk and benefits of different approaches.

- The appropriate laparoscopic treatment for an ovarian cyst that is not suited for conservative management is salpingo-oophorectomy, with removal of the ovary intact in a retrieval bag without cyst rupture into the peritoneal cavity. This is the case even when the risk of malignancy is low. In most cases this is likely to be a bilateral salpingo-oophorectomy (BSO), but this will be determined by the wishes of the woman.

- In addition to bilateral BSO an omental biopsy and peritoneal washings is also recommended as 20% of healthy postmenopausal women will have some form of abnormal ovarian morphology.

- It should also be remembered that the main reason for operating is to exclude and assess for suspected ovarian malignancy. If an ovarian malignancy is present, then appropriate management in the postmenopausal woman is to perform a laparotomy and a total abdominal hysterectomy, bilateral salpingo-oophorectomy and full staging procedure.

- Ovarian cystectomy is not recommended as there is the risk of cyst rupture during cystectomy which may have an unfavorable impact on disease-free survival in the small proportion of cases with an ovarian cancer.

- Where clinicians are uncertain of the management, or there are suspicious features in either the clinical findings or investigation findings, advice can be sought from the MDT team either in person or by referral.

- Where family history is significant, referral to the Regional Cancer Genetics service should be considered.

6.0 Training

6.1 All staff should receive regular updates regarding new guidelines. In particular, clinicians should be aware of the different presentations and significance of ovarian cysts in postmenopausal women RCOG GTG No 34

6.2 All staff should be familiar with RCOG and NICE guidance

7.0 Monitoring / Auditable Standards

7.1 Appropriate calculation of RMI

7.2 Appropriate referral of patients to MDT

8.0 References

Cancer Research UK http://www.cancerresearchuk.org

NICE CG122 - Ovarian cancer: The Recognition and Initial Management of Ovarian Cancer

RCOG GTG No 34 - The Management of Ovarian Cysts in Postmenopausal Women

RCOG GTG No 62 - Management of Suspected Ovarian Masses in Premenopausal women

Appendix 1

Calculating RMI

The 'risk of malignancy index' (RMI) can be calculated as follows:
RMI = U x M x CA125

U = 0 for ultrasound 0
U = 1 for ultrasound score of 1
U = 3 for ultrasound score of 2-5

Ultrasound sans are scored 1 point for each of the following characteristics:

- **Multi-locular Cyst**
- **Evidence of solid areas**
- **Bilateral lesions**
- **Evidence of Metastases**
- **Presence of ascites**

M = 3 for all women in this guideline (postmenopausal)

CA125 is the serum CA125 measurement in u/ml

Appendix 2

Management of Postmenopausal Ovarian Cysts

Postmenopausal Ovarian Cyst
(Cystic lesion 2cm or more)

↓

TVS ± TAS if not already performed
CA-125

↓

Calculate RMI

- < 200 (low risk malignancy)
- ≥ 200 (high risk malignancy)
- Uncertainty about management/malignancy risk

< 200 (low risk malignancy)

Cyst with **ALL** of following:

- Unilocular
- Unilateral
- < 5cm
- Simple
- Asymptomatic

↓

Conservative management

↓

Process:

- TVS + Ca 125 every 4-6 months
- Follow up for 1 year

↓

Discharge if:

1. Resolution - 50% resolve within 3 months
2. Reduction in size
3. No change after 1 year

Uncertainty about management/malignancy risk

Cyst with **ANY** of following:

- Multilocular
- Bilateral
- ≥5cm
- Non-simple
- Symptomatic

↓

Consider Salpingo-oopherectomy

↓

Recommended procedure:

- **Bilateral**
- **Laparoscopy**
- Removal of specimen **in a bag**
- Omental Biopsy
- Peritoneal washings if present

Any management resulting in increased risk of rupture is **NOT RECOMMENDED** (associated with decreased disease free survival)

- Drainage, aspiration
- Cystectomy

≥ 200 (high risk malignancy)

Refer to SaTH Oncology MDT

Low likelihood of ovarian malignancy

↓

Laparotomy

↓

Pelvic clearance
(TAH, BSO, washings and omental bx)

↓

To be performed by suitably trained gynaecologist

Done locally by oncology team

High likelihood of ovarian malignancy

↓

Laparotomy

↓

Staging laparotomy

↓

To be performed by trained gynaecology oncologist

Referred for cancer centre management as per RCOG GTG recommendation

Developing suspicious features (e.g. increase in size of cyst, change in features of cyst)