

Management of Suspected Ovarian Masses in Premenopausal Women

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Up to 10% of women will have some form of surgery during their lifetime for the presence of an ovarian mass. In premenopausal women almost all ovarian masses and cysts are benign. The overall incidence of a symptomatic ovarian cyst in a premenopausal female being malignant is approximately 1:1000 increasing to 3:1000 at the age of 50. Ten percent of suspected ovarian masses are ultimately found to be non-ovarian in origin.

The underlying management rationale is to minimise patient morbidity by:

- Conservative management where possible
- Use of laparoscopic techniques where appropriate, thus avoiding laparotomy where possible
- Referral to a gynaecological oncologist where appropriate.

Preoperative assessment of women with ovarian masses

History: A thorough medical history, a family history of ovarian or breast cancer,

Symptoms suggestive of endometriosis or ovarian malignancy.

Examination - physical examination including abdominal and vaginal examination.

Blood tests:

CA 125 – not necessary in all premenopausal women when an

ultrasonographic diagnosis of a simple ovarian cyst has been made.

Lactate dehydrogenase (LDH), α -FP and hCG - should be measured in all women under age 40 with a complex ovarian mass because of the possibility of germ cell tumours.

Imaging methods:

Ultrasonography: pelvic ultrasound, single most effective method, TVS being preferable.

CT scan, MRI - routine use of CT scan and MRI does not improve the sensitivity or specificity obtained by TVS in the detection of ovarian malignancy.

Estimation of the risk of malignancy:

RMI I is the most effective for women with suspected ovarian cancer.

RMI I combines three presurgical features: serum CA-125 (CA-125); menopausal status (M); and ultrasound score (U).

$RMI = U \times M \times CA-125$.

The ultrasound result is scored 1 point for each of the following characteristics:

multilocular cysts, solid areas, metastases, ascites and bilateral lesions. U = 0 (for an ultrasound score of 0), U = 1 (for an ultrasound score of 1), U = 3 (for an ultrasound score of 2–5).

- The menopausal status is scored as 1 = premenopausal and 3 = postmenopausal.
- Postmenopausal can be defined as women who have had no period for more than one year or women over the age of 50 who have had a hysterectomy.
- Serum CA-125 is measured in IU/ml and can vary between zero to hundreds or even thousands of units.

Estimate of risk of malignancy in premenopausal women without using a CA-125 - use of specific ultrasound morphological findings without CA-125 has been shown to have high sensitivity, specificity and likelihood ratios.

Management of ovarian masses presumed to be benign in non-emergency situations

Small (less than 50 mm diameter) simple ovarian cysts generally do not require follow-up as these cysts are very likely to be physiological and almost always resolve within 3 menstrual cycles.

Women with simple ovarian cysts of 50–70 mm in diameter should have yearly ultrasound follow-up and those with larger simple cysts should be considered for either further imaging (MRI) or surgical intervention.

Ovarian cysts that persist or increase in size are unlikely to be functional and may warrant surgical management.

The use of the combined oral contraceptive pill does not promote the resolution of functional ovarian cysts.

The laparoscopic approach for elective surgical management of ovarian masses presumed to be benign - associated with lower postoperative morbidity and shorter recovery time and is preferred to laparotomy in suitable patients and cost-effective.

Large masses with solid components (for example large dermoid cysts) laparotomy may be appropriate.

Laparoscopic management of presumed benign ovarian cysts should be undertaken by a surgeon with suitable experience and appropriate equipment, whenever local facilities permit.

Aspiration of ovarian cysts, either vaginally or laparoscopically, is less effective and is associated with a high rate of recurrence.

Spillage of cyst contents should be avoided .Use of a tissue bag to avoid peritoneal spill of cystic contents should be considered.

The possibility of removing an ovary should be discussed with the woman preoperatively.

Where possible removal of benign ovarian masses should be via the umbilical port. ; results in less postoperative pain and a quicker retrieval time than when using lateral ports of the same size.