

I declare no competing interests.

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Conservative management of adnexal masses



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Adnexal masses are common and often identified incidentally.¹ This diagnosis often leads to additional investigations and interventions that could cause morbidity with unknown or questionable clinical benefit.^{1,2} Generally, ovarian tumours do not undergo preoperative biopsy to avoid disrupting the ovarian capsule, which can cause dissemination of malignant cells.³ Hence, without a definitive tissue diagnosis, clinicians are often reliant on other tools to determine the clinical implications of a neoplasm. Therefore, reliable clinical tools are essential to aid in decision making when a woman presents with a new adnexal lesion. Many practitioners often depend on additional investigations such as serum tumour markers, MRI, and the risk of malignancy index (RMI) algorithm;^{4,5} however, these tests are non-specific and carry low predictive values.

In *The Lancet Oncology*, Wouter Froyman and colleagues report on the 2-year interim results of the International Ovarian Tumor Analysis phase 5 (IOTA5) study.⁶ This is a prospective, multicentre, cohort study of patients with adnexal masses (ovarian, tubal, and paratubal) classified as benign by use of ultrasonography. The primary outcomes of the interim study were to determine the 2-year cumulative incidence of spontaneous resolution of these masses and adverse events including borderline or invasive malignancy, cyst rupture, and torsion.⁶ This study focuses on a crucial topic that affects many women and poses a common challenge in clinical practice. Reducing unnecessary testing (ie, imaging, biopsies, blood tests, and surgical interventions) has the potential to optimise use of resources. Furthermore, defining clear criteria of the malignant potential of a tumour and the associated

risks of complications would be helpful to triage patients to conservative versus surgical management. The authors report a low risk of malignancy and acute complications and strongly support conservative management of adnexal masses classified as benign by use of ultrasound.⁶ The overall 2-year cumulative incidence of spontaneous resolution of these masses was 20.2% (95% CI 18.4–22.1).⁶ The 2-year cumulative incidence of finding invasive malignancy at surgery was 0.4% (95% CI 0.1–0.6), 0.3% (<0.1–0.5) for a borderline tumour, 0.4% (0.1–0.7) for torsion, and 0.2% (<0.1–0.4) for cyst rupture.

Although these data are encouraging, some limitations are noted. The study is a 2-year interim analysis of a large multicentre trial that originally identified 8519 women with adnexal masses, of whom 4567 (54%) were selected for conservative management and 3906 (46%) for surgical management; only those selected for conservative management are discussed in the Article. Of those selected for conservative management, 120 (3%) patients were excluded because their diagnosis did not match the inclusion criteria (ie, they were diagnosed with an invasive or borderline malignant lesion, or the ultrasound examiner was uncertain of their diagnosis) and a further 1303 (29%) patients were excluded because their data was of insufficient quality or their study site had not collected enough data. Hence, the primary analysis comprised a subgroup of 3144 patients. Of these patients, an additional 557 (18%) were excluded because of either incomplete data (n=221) or unplanned surgery (n=336). Of the remaining 2587 patients, 668 (26%) had masses that had been diagnosed before inclusion in the study and potentially are a confounding subgroup

Published Online
February 5, 2019
[http://dx.doi.org/10.1016/S1470-2045\(18\)30939-2](http://dx.doi.org/10.1016/S1470-2045(18)30939-2)

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with a better prognosis. The defined population that ultimately underwent complete follow-up and analysis as planned comprised 1919 patients. The attritions and challenges in following the initial study plan highlight the complexity of this type of study and the difficulty in interpretation of trial data. Importantly, although there is a potential risk of malignancy when a woman is diagnosed with an adnexal mass, early removal has not been shown to positively affect survival.⁷ So far, no effective screening method for ovarian carcinoma has been developed.^{8,9} Of the primary analysis population (n=1919), 12 (<1%) patients were diagnosed with malignant or premalignant neoplasms (five primary ovarian cancers, five ovarian low malignant potential tumours, and two metastatic tumours to the ovary).⁶ Notably, on retrospective review of the initial ultrasound images, many of the malignant lesions showed sonographic signs suggestive of malignancy and so were misclassified as benign. Ultrasound is an objective test and the operators' expertise directly correlates with accuracy.¹⁰ This radiological variability is discussed by the study authors and they highlight that the proportion of patients judged to be suitable for follow-up was different between centres because of differences in patient characteristics and the level of experience of ultrasound examiners.⁶ Additionally, several centres were excluded from the analysis because of low enrolment. Clear definition of systematic and reproducible sonographic criteria that are generalisable and that will lead to diagnostic precision is imperative.

In summary, the current study supports conservative management of adnexal masses that are classified as benign on ultrasound imaging. Longer follow-up of the IOTA5 cohort study might further characterise the natural progression of masses characterised as benign by use of ultrasound and whether or not the incidence of unplanned surgical interventions, complications, or spontaneous resolution increase. The treatment

algorithm for women with adnexal masses is based on clinical judgment and proper counselling. This approach takes into account the patients' symptoms, physical findings, and test interpretation. The knowledge generated from the current trial could add value when counselling women with adnexal masses and could be reassuring to the patient when considering conservative management. The success of such management is dependent on good ultrasonography, and future efforts should continue to strive to improve predictive accuracy.

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We declare no competing interests.

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Female representation among US National Comprehensive Cancer Network guideline panel members



The proportion of female physicians entering the field of oncology in the USA has steadily increased during the past two decades. Nearly half of US haematology-

oncology fellowship trainees are women, and the proportion of female academic oncology faculty, which is increasing at the same rate as trainees, but with a

Published Online
 February 7, 2019
[http://dx.doi.org/10.1016/S1470-2045\(19\)30065-8](http://dx.doi.org/10.1016/S1470-2045(19)30065-8)