OBGYN residents can accurately classify benign vs. malignant ovarian tumors with International Ovarian Tumor Analysis (IOTA) guidelines

JMV SEBAJURI1, U MAGRIPLES1,2, M SMALL1,2,3, D NTASUMBUYANGÉ1, S RULISA1, L BAZZETT-MATABELE1,2
Depts of Obstetrics and Gynecology, Univ of Rwanda1, Yale Univ School of Medicine2 and Duke Univ School of Medicine3

Introduction

- Recognition of benign vs. malignant ovarian tumors is essential in GYN ultrasound (US)
- IOTA guidelines have been proposed as a key component of OB/GYN residency training
- Objective: to determine whether IOTA guidelines could be accurately used by OBGYN residents in Rwanda

Methods

- All Rwandan OBGYN residents received a training lecture in IOTA guidelines in addition to the residency curriculum
- All patients undergoing laparotomy for adnexal masses at the Kigali University Teaching Hospital were included
- Preoperative US was performed by residents at different levels of training (blinded to results of previous US)
- US grading was compared to final pathology

IOTA Simple Rules

B-Features
- B1 Unilocular tumor
- B2 Solid component <7mm
- B3 Presence of acoustic shadows
- B4 Smooth multilocular tumor, largest diameter <10cm
- B5 No blood flow

M-Features
- M1 Irregular solid tumor
- M2 Presence of ascites
- M3 At least 4 papillary projections
- M4 Irregular multilocular solid tumor, largest diameter ≥10cm
- M5 Very strong blood flow

Results

- 72 patients, 116 US performed
- 98 cases (84.5%) categorized as either benign or malignant, 18 cases (15.5%) inconclusive
- 74/78 (94.9%) considered benign by IOTA were confirmed benign and all 20 masses classified as malignant by IOTA were confirmed malignant by histology
- Sensitivity and specificity to diagnose benign and malignant by IOTA was 83.3% and 100%, respectively
- Positive and negative predictive values were 100% and 94.9%
- There were no significant differences noted between residency years

Conclusion

IOTA guidelines can be successfully implemented into residency training and are valid in assessing patients with adnexal masses before surgery by residents at all levels at the Kigali University Teaching Hospital in Rwanda