HOW FREQUENTLY BENIGN UTERINE MYOMAS APPEAR AS SUSPICIOUS SARCOMAS ON ULTRASOUND EXAMINATION

Introduction/Background To determine the percentage of benign myomas that appear as suspicious for uterine sarcoma on ultrasound examination

Methodology Prospective observational multicenter study (June 2019-December 2021) comprising a consecutive series of patients with histologically proven uterine myoma after hysterectomy or myomectomy who underwent transvaginal and/or transabdominal ultrasound prior to surgery. All ultrasound examinations were performed by expert examiners. MUSA criteria were used to describe the lesions. Suspicion of sarcoma was established when three or more sonographic features described by Ludovisi et al as frequently present in uterine sarcoma were present. These features were no myometrium visible, irregular cystic areas, non-uniform echogenicity, irregular contour, cooked appearance and color score 3–4. In addition, the examiners had to classify the lesion as suspicious by her/his impression, independently of the number of features present.

Results 651 women were included. Median maximum diameter of the myomas was 48 mm (range: 10-263 mm). 266 (41%) of the patients had more than one myoma. Using the criterion of > 3 suspicious features, 24 (3.7%) of the myomas had suspicious appearance. If we had used a criterion of > 2 features, this figure increased to 62 (9.5%) cases. By subjective impression, the examiners considered as suspicious 35 (5.4%) cases (18 cases had > 3 suspicious features and 29 cases had > 2 suspicious features)

Conclusion About 4–10% of benign uterine myomas may exhibit sonographic suspicion of sarcoma. This figure is not negligible.

EXTERNAL VALIDATION OF THE ADNEX MODEL TO TRIAGE ADNEXAL MASSES IN GREECE: A TERTIARY CENTER STUDY CONDUCTED BY NON-EXPERT SONOGRAPHERS

Introduction/Background To externally validate the Assessment of Different NEOplasias in the adnexa (ADNEX) model and evaluate its performance in differentiating benign from malignant adnexal masses. This study aimed to assess the diagnostic accuracy of the ADNEX model in a tertiary center in Greece.

Methodology A retrospective analysis of prospectively collected single-center university hospital data was performed from 2019 to 2022 by non-expert, although IOTA (International Ovarian Tumor Analysis Group) certified, sonographers. All patients were examined by transvaginal and transabdominal ultrasonography. Serum CA125 levels were measured and the diagnostic performance of the ADNEX model was assessed with CA125 as a predictor.

Results We retrieved data from 91 patients with 92 adnexal masses, of which 29 were excluded based on IOTA Simple Descriptors (SD) and Simple Rules (SR). Of the 62 patients with 62 adnexal masses included, 22/62 (35.5%) had benign and 40/62 (64.5%) had malignant tumors. Empirical area under the receiver operating characteristic curve (AUC) for the distinction between benign and malignant tumors was 0.75, sensitivity was 1.0, specificity was 0.5, precision was 0.784, negative predictive value was 1.0, false positive rate was 0.5, false negative rate was 0.0, and diagnostic accuracy was 0.823. Data follow a degenerate distribution and imply perfect decision performance.

Conclusion Our findings suggest that, when used by non-experts, IOTA certified sonographers, the ADNEX model tends to overestimate the probability of malignant adnexal masses. The aforementioned accurately reflect the weaknesses of medical training and health care system in Greece.

PERCUTANEOUS UTERINE NEEDLE BIOPSY WITH MICROSCOPIC AND ARRAY-CGH ANALYSES IN PATIENTS WITH SUSPICIOUS MYOMETRICAL TUMORS ON MRI: A PROSPECTIVE STUDY

Introduction/Background Preoperative diagnosis of uterine tumors is of utmost importance to avoid inadvertent morcellation of leiomyosarcoma (LMS) and unnecessary hysterectomy in childbearing patients. There are no pathognomonic criteria for malignancy on Magnetic Resonance Imaging (MRI). The diagnosis of malignancy includes microscopic and genomic analyses with array-Comparative Genomic Hybridization (CGH). To date, no study has evaluated preoperative percutaneous uterine needle biopsy (PUB) with microscopic examination (M-PUB) and array-CGH analyses (MCGH-PUB).

Methodology This is a prospective single-center cohort study including all consecutive patients who had uterine LMS suspicion on MRI and for whom a PUB was performed. Microscopic and array-CGH analyses with genomic index (GI) count for myometrial tumors were performed in order to guide the therapeutic strategy. Smooth muscle tumors of uncertain malignancy potential (STUMPs) with a GI superior to 15 were assessed malignant, as well as tumors with a complex genomic profile (GI superior to 30 and/or malignant profile). Preoperative diagnoses based on M-PUB and MCGH-PUB were compared to the final histological diagnosis.