EP34.20 MYLUNAR (MYometrial Lesion Ultrasound And mRi) Diagnostic algorithm for uterine sarcoma identification: a 1-year interim analysis of a monocentric, prospective, observational cohort study

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Background
Uterine sarcomas are rare malignant tumors arising from the mesenchymal tissues of the uterus including the endometrial stroma, uterine muscle and connective tissue. The diagnosis of uterine sarcomas is a challenge, in particular, data on the ultrasound features of uterine sarcomas are scarce and they are mainly based on retrospective case series.

Methods
This is a monocentric, prospective, observational cohort study. All patients with at least one myoma measuring >3 cm were included in MYLUNAR study and were assessed by using Green Card criteria. If no Green Card criteria were present the patients underwent an annual telephone follow up for 2 years (“White patients”). If one of the Green Card criteria was present, a dedicated clinical and ultrasound paper form (Orange Card) was filled in. In the presence of at least two Orange card parameters the patients were triaged to Magnetic Resonance imaging and surgery (“Orange patients”). Patients with less than two orange criteria were classified as “Green patients” and underwent a follow up ultrasound examination after 6, 12 and 24 months. An interim analysis was performed at 15 months.

Results
We enrolled 1070 patients: 442 (41.3%) orange, 455 (42.5%) green, 173 (16.2%) white. Thirty orange patients (6.8%) dropped out before surgery. 288/412 (69.9%) orange patients underwent surgery and the histology was uterine sarcomas or STUMP in 16 (5.5%) cases, tumors of other origins in 14 (4.9%) cases and benign lesions in 258 (89.6%) cases. 151/455 (34%) green patients underwent surgery due to symptoms and histology was benign in all cases. Uterine sarcomas and STUMP were larger than benign lesions (100.6±52 vs. 81.9±35) presenting cystic areas (68.8% vs 21.3%) and moderate or rich vascularization at Color Doppler (62.6% vs 32%). Acoustic shadows were more frequently absent in malignant lesions than in benign ones (75% vs 19.8%). The “cooked aspect” (i.e. subjective evaluation of inconsistency of the mass) was observed in 5/16 (31.3%) myometrial malignancies lesions.

Conclusion
The interim analysis of MYLUNAR study seems to be encouraging for the management of women with myometrial lesions. Some morphological characteristics of sarcomas differ from the benign counterpart. The diagnostic algorithm of MYLUNAR study may select patients with high risk of malignancy.