How can MUSA terms improve the diagnosis of adenomyosis

Balázs Erdődi¹, Fanni Török¹, Szabolcs Bózsa², Attila Jakáb
¹. Department of Obstetrics and Gynecology, University of Debrecen, Debrecen, Hungary. 2. Department of Gynecology, Hospital St. John of God, Vienna, Austria

KEYWORDS: Adenomyosis, Doppler ultrasound, Endometriosis, Myometrium.

Objectives: To reveal the ultrasonography-based prevalence of adenomyosis in a patient population underwent ultrasound scans due to non-specific symptoms or having no symptoms at all.

Methods: In a retrospective setting the data of 206 patients have been analysed. All patients were booked for a second-opinion transvaginal scan due to adnexal lesions. Systematic offline review was performed in all cases where any sign of adenomyosis was mentioned in the scan report. The review was made according to the adenomyosis specific ultrasonographic signs set up by the Morphological Uterus Sonographic Assessment (MUSA) group.

Results: Altogether 206 patients were scanned with adnexal lesions (N=206, 12-91yrs, Avg: 45.06yrs). According to the scan report adenomyosis was present in 49 cases (N=49, 23.79%, 17-52yrs, Avg: 38 yrs). From the 8 suggested adenomyosis-specific markers at least 4 were present in more than half of the cases (N=27, 55.10%). The most common markers were hyperechoic islands (N=48, 97.96%), irregular junctional zone (N=45, 91.84%), cysts in the myometrium (N=34, 69.39%), echogenic subendometrial lines and buds (N=31, 63.27%). The least common sign was translesional vascularity (N=2, 4.08%) however detailed color-Doppler examination of the uterus was not performed in each case as the main interest of field was the adnexum in these patients. Concurrent endometriomas and histopathological proven endometriosis was found in 11 cases (N=11, 22.45%) although surgery has not been done in 23 cases due to the nature of the adnexal lesion (N=23, 46.94%).

Conclusions: Adenomyosis can be the most common disorder in the background of dysmenorrhea and pelvic pain in fertile age. The earlier the diagnosis the easier the targeted treatment is however, histological proof is usually unavailable. Detailed ultrasound scans with color-Doppler examination performed on the uterus can reveal not only adenomyosis but can predict endometriosis shortening the time until the setup of the correct diagnosis. MUSA statements should be implemented in all gynecological transvaginal scans to help the diagnosis of uterine disease.

van den Bosch et al. Terms, definitions and measurements to describe sonographic features of myometrium and uterine masses: a consensus opinion from the Morphological Uterus Sonographic Assessment (MUSA) group UOG, 2016.