

OP27

ROLE OF MAXIMUM URETHRAL CLOSURE PRESSURE (MUCP) IN THE DIAGNOSTIC PATHWAY OF FOWLER'S SYNDROME (FS): CAN WE PRESCIND FROM EXTERNAL URETHRAL SPHINCTER ELECTROMYOGRAPHY (EUS-EMG)?

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Introduction:

Diagnosing FS remains a clinical challenge in clinical practice. The distinct EUS-EMG abnormalities are the most accepted criteria. Unfortunately, access to EUS-EMG is limited. A high MUCP has also been proposed as a diagnostic criterion, frequently considered a predictor of EUS-EMG abnormalities. However, there is no consensus in the definition of high MUCP and is usually described as $>100\text{cmH}_2\text{O}$ in FS. Interestingly, there is opposing evidence regarding MUCP values in patients with normal (n) and abnormal (ab) EUS-EMG. We aimed to review the predictive value of MUCP for an abEUS-EMG in a contemporary series of patients with suspected FS.

Patients and Methods:

Retrospective review of UPP and EUS-EMG performed in a single centre for patients with suspected FS between 2015-2022. Age, MUCP and EUS-EMG outcome (normal/abnormal) were collected. Expected MUCP (expMUCP) was calculated with Edwards-Malvern formula. All UPP and EUS-EMG were performed following the validated departmental protocols. Statistical analyses were performed with Stata 17.0. P values <0.05 were considered statistically significant.

Results:

A total of 201 patients were included (64 nEUS-EMG and 137 abEUS-EMG). Median (IQR) age (years) was similar between groups (nEUS-EMG=34.5 [24-44.5] vs abEUS-EMG=29 [25-37], $p=0.146$). Mean MUCP was higher in abEUS-EMG group (90.1 ± 27.7 vs 78.82 ± 30.65 cmH_2O ; $p=0.005$). However, logistic regression and ROC curve analyses confirmed only an acceptable predictive capacity of MUCP for abEUS-EMG (AUC=0.61), not improved when MUCP-expMUCP difference (AUC=0.58) or MUCP/expMUCP ratio (AUC=0.59) were used. A MUCP $>100\text{cmH}_2\text{O}$ correctly classified only 49.25% of patients (sensitivity=37.23%; specificity=75%; positive predictive value 76.12%; negative predictive value 35.82%).

Conclusion:

MUCP has only an acceptable predictive value for an abEUS-EMG in patients with suspected FS. Our data supports the inclusion of EUS-EMG in the diagnostic pathway of these patients, especially when MUCP $<100\text{cmH}_2\text{O}$. Efforts should be made to facilitate access to EUS-EMG in clinical practice.