

## Summary

### Flexible Endoscopic Evaluation of Swallowing in the Diagnosis of Dysphagia

Flexible Endoscopic Evaluation of Swallowing (FEES) is abroad routinely used method for diagnostic and treatment of dysphagia that was so far not introduced in Czech Republic. The work was focused on adaptation of the method to conditions of Czech Republic (adjustment of protocol, competency definitions, material description) and incorporating to system of Czech Republic public health insurance.

Secondly the creation of assessment score for FEES to quantify yet only verbal outcome of FEES examination and allow better interpretation of the result to professional public was planned.

In total 210 patients with dysphagia and 69 patients in control group were assessed by FEES. Single parameters of original FEES protocol were categorized and partial and overall risk factors scores for assessing anatomy and physiology, puree, liquid and solid food swallow were counted.

The modified penetration-aspiration scale (mPAS) was suggested to more emphasise defence ability of airways over just the depth of penetration or aspiration of the bolus. Overall FEES-score was counted by weighting of total risk factors against the degree of mPAS. The level of correlation in between FEES-score and dysphagia severity was high ( $\rho=0.993882$ ,  $p<0.0001$ ). Also the statistically significant difference of FEES-score between dysphagia and control group was found ( $p<0.0001$ ).

For FEES evaluation we suggest to use the combination of mPAS values (0-4) and FEES-score (0-140). New classification scale is weak for rare combinations of certain risk factors and mPAS frequencies, further research towards FEES-score formula specification will be necessary.