INTRAOPERATIVE MUCP MEASUREMENT: A NEW TECHNIQUE OF TAPE TENSION ADJUSTMENT IN TOT SURGERY?

Hypothesis / aims of study
Tape tension adjustment is an essential procedure in mid urethral sling surgery. However, there is no standard method in tension adjustment. We attempted to determine if intraoperative maximal urethral closing pressure (MUCP) elevation can be used as a reference value of adequate tape tension and a prognostic factor of TOT surgery.

Study design, materials and methods
We did a prospective study measuring MUCP just before tape insertion and just after tension adjustment during TOT surgeries in operating room. All surgeries were performed by a single surgeon under spinal anesthesia between January 2007 and December 2008. Clinical data including age, Q-tip test and preoperative urodynamic results were collected. The cure rate was determined by using questionnaire via the telephone. Cure of incontinence was defined as the absolute absence of subjective complaint of leakage in any circumstance. Patients were divided into two groups. MUCP elevation group was patients showing the elevation of MUCP more than 10 cmH2O before tape insertion, and others were regarded as non MUCP elevation group. We compared the cure rate and pre and postoperative clinical variables between two groups and compared the MUCP change between cure and non cure group.

Results
A total of 48 patients were undergone TOT surgeries. MUCP elevation group (N=19) and non MUCP elevation group (N=29) were similar in patient’s characteristics and the preoperative parameters including age, mixed incontinence prevalence, Q-tip angle, peak flow rate, MUCP and valsalva leak point pressure (VLPP). The mean follow-up period was 9 months (3-15 months). The cure rate was significantly higher in MUCP elevation group than non MUCP elevation group (84% vs. 52%, p=0.02). The cure group has more elevated MUCP change than non cure group. There is no significant difference in mean postoperative peak flow rate between two groups and there is no retention episode in two groups.

Interpretation of results
MUCP elevation more than 10 cmH2O just after tape insertion is a prognostic factor.

Concluding message
The measurement of MUCP during TOT operation appears to be useful in tape tension adjustment.