We assessed the impact of transobturator tape (TOT) treatment on overactive bladder (OAB) symptoms, particularly focused on nocturia in patients with mixed urinary incontinence (MUI).

In this retrospective cohort study, the medical records of 237 patients who underwent TOT surgery for treating women with MUI were reviewed.

Of these, 86 (36.4%) patients had preoperative nocturia.

Patients with neurological diseases or sleep disorders that could affect the voiding pattern were excluded.

Patients who were being treated with anticholinergics and antidepressant were also excluded and finally 70 subjects eligible for analysis.

Pre- and postoperative evaluations consist of physical examination, 3 day frequency-volume charts and health-related quality of life questionnaires (King’s Health Questionnaire, OABSS and OAB-questionnaire).

TOT resulted in an overall significant improvement in OAB symptoms including nocturia.

Frequency-volume charts revealed that TOT significantly decreases the actual number of nightly voids (ANV) and nocturnal bladder capacity index (NBCI) in the entire cohort.

However, in a subgroup of women with nocturnal polyuria, there was no significant change in ANV or NBCI after sling operation.

Correlation analysis of the whole cohort revealed that the postoperative changes in NBCI correlated positively with postoperative changes in ANV.

The nocturia-persisting group was more likely to have a nocturnal polyuria and a lower preoperative functional bladder capacity than nocturia-improved group (P=0.024 and P=0.032, respectively).

Table 3. Change in actual number of nightly voids according to severity and type of nocturia after TOT in female MUI.

Table 4. Change in nocturnal bladder capacity index according to severity and type of nocturia after TOT in female MUI.

Table 5. Comparison of the preoperative clinical and urodynamic features of the nocturia-improved and -persisting groups.

Interpretation of results

Over half of the patient (55.7%) achieving an improvement of nocturia after TOT. Patients with pure NP did not experience significant improvement in their nocturia.

Improvement in nocturnal bladder capacity after TOT treatment may be attributed to a reduction in episodes of nocturia.

• Disclosures: statement: none

Concluding message