

# #382 Variations in midurethral tape localization and early outcomes

– a preliminary report.



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## HYPOTHESIS / AIMS OF STUDY

Surgical treatment of stress urinary incontinence in women with the use of polypropylene tape has become a standard procedure. According to the authors of this method – Petros and Ulmsten – the tape should be placed under the midurethra [1].

The aim of this retrospective study was to analyse the impact of variations in the properly localized tape on the patient's subjective assessment after the treatment [2].

## MATERIALS AND METHODS

A group of 50 patients after anti-incontinence surgery using polypropylene tape took part in the study: 25 patients with the implant localised exactly under the midurethra centrally and 25 patients with the implant under the urethra but slightly distally to its middle.

The patients from both of these groups were similar in terms of age, BMI, type of procedure (retropubic tape) and time of the follow-up performed postoperatively. The assessment consisted of medical history, urogynecological examination and introital ultrasonography. Translated questionnaires (UDI-6, Sandvik, IIQ-7, VAS- patient's subjective assessment: 0= poor, 100= excellent) were also completed. The visualisation of the tape was performed at rest in mediosagittal plane using introital two-dimensional ultrasonography [3]. There were two parameters measured, which specified the tape position. On the mediosagittal plane we measured the distance between the external orifice and the lower edge of the tape (T), and the total urethral length (U). Then the value of the Tape Index was determined as a quotient (T/U) showing in a calculable way the position of the tape. In relation to the Tape Index, the study group was divided into two subgroups – the patients with the tape localised under the midurethra centrally (Tape Index 0,25 – 0,36) and those patients with the tape localised under the midurethra distal part (Tape Index  $\leq$  0,24). The correlation between the tape localisation (mid- and distal part of the urethra) and the VAS of the patient's subjective assessment ( $<85$  and  $\geq 85$ ) was analysed using a Chi square test.

## RESULTS

There were no differences in subjective assessment between patients having the tape inserted under the midurethra centrally and under the midurethra distal part (Chi-square test = 1,47).

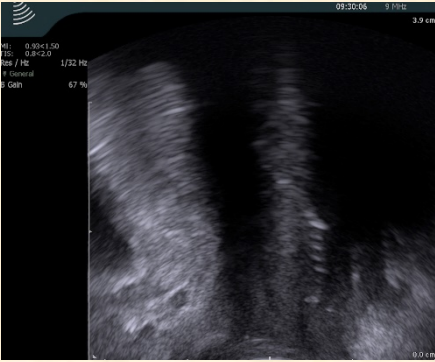


Figure 1: Tape visualisation in mediosagittal plane, T/U = 0,16 (Group  $\leq$ 0,24)

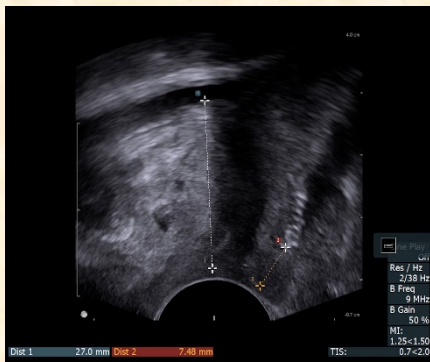


Figure 2: Tape visualisation in mediosagittal plane, T/U = 0,27 (Group 0,25 – 0,36).

Table 1: Patient characteristics, average values.

|    | TVT       | TVT location                                    | Age (on the day of OP) – years (average values) | BMI (on the day of OP), average values | Time (from the OP to the date of control), average | UDI 6, average | Tape Index: T/U (average values) | VAS 0: poor 100: excellent (average values) |
|----|-----------|---|---|--|--|----------------|----------------------------------|---|
| 25 | 25 (100%) | Tape Index $\leq$ 0,24 (0,07 – 0,24, ave. 0,18) | (32-78) 57,8                                    | 28,8                                   | 2,8 month  | 0,68           | 0,18                             | 84  |
| 25 | 25 (100%) | Tape Index 0,25 – 0,36, ave. 0,3                | (42-74) 56,6                                    | 28,2                                   | 3, 3 month   | 0,76           | 0,30                             | 92  |

## CONCLUSIONS

In our population the preliminary results showed no differences between the compared groups. The tape inserted under the distal part of the urethra had the same value for the patient's subjective assessment as when inserted under the midurethra - centrally. In our experience, more distal location of the tape is related to less risk of intraoperative bladder injury. So when there would be no differences in long-term outcomes, more distal implantation should be recommended.

## REFERENCES

1. Petros PE, Ulmsten UI. An integral theory and its method for the diagnosis and management of female urinary stress incontinence. Scand J Urol Nephrol Suppl 1993;153:1-93.
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3. Staack A, Vitale J, Ragavendra N, et al. Translabial ultrasonography for evaluation of synthetic mesh in the vagina. Urology 2014;83(1):68-74.