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BURCH COLPOSUSPENSION AND TVT – PERIOPERATIVE RESULTS OF A PROSPECTIVE RANDOMIZED TRIAL IN PATIENTS WITH GENUINE STRESS INCONTINENCE

Aims of Study
To evaluate the feasibility, intra- and postoperative complications of patients with genuine stress incontinence (GSI) undergoing tension free vaginal sling procedure (TVT) or open Burch colposuspension in a prospective randomized four center trial.

Methods
Patients complaining of loss of urine underwent a complete urogynecologic investigation including gynecological investigation, residual urine measurement, filling cystometry, urethral pressure pofile measurement at rest and during stress, a clinical stress test in the sitting and standing position (bladder volume = 300 ml) , and pelvic floor ultrasound to assess genuine stress incontinence. Patients with residual urine > 50 mls, urinary tract infection, mixed incontinence, detrusor instability, symptoms of urgency, and pelvic floor disorders (cystoceles, enteroceles, rectoceles) were excluded from our study.
Patients with proven GSI were randomized (stratified random treatment assignment and block randomisation) in either receiving TVT procedure or open Burch colposuspension, as described previously [1, 2].
All the procedures were carried out by up to 3 urogynecologists per center, with their own experience of at least $\geq$ 50 Burch colposuspensions and TVT procedures, respectively.
Data were documented on a patient study form and evaluated by author 4 (LC).

Results
166 patients were randomized in our study. 83 patients (mean age: 59,5 yrs; range:39 – 81 yrs.) underwent TVT procedure (group A), and 83 patients (mean age: 58,6 yrs; range: 42 – 75 yrs.) received Burch colposuspension (group B), as their single intervention. Mean body mass index in group A and group B was 27,8 and 27,5, respectively.
TVT procedure was performed in 27,2 $\pm$ 6,3 minutes, whereas Burch colposuspension lasted 39,1 $\pm$ 17,8 minutes. Intra- and postoperative complications are demonstrated in Table 1.

Table 1: Intra- and postoperative complications

	Group A	Group B
Bladder perforation	2 (2,4%)	1 (1,2%)
Hemorrhage > 200 ml	-	2 (2,4%)
Wound infections	-	6 (3,6%)
Fever $\geq 38^0$ Celsius	-	1 (1,2%)
Hematoma	-	4 (4,8%)
Urinary tract infection	4 (4,8%)	8 (9,6%)

Hospital stay for group A and group B patients lasted 3,27 $\pm$ 1,46 days and 8,53 $\pm$ 2,59 days, respectively. Normal micturition (residual urine < 50 ml) returned 3,34 $\pm$ 5,17 days in group A and 7,85 $\pm$ 4,37 days in group B patients after surgery.

Conclusions
Compared with the “golden standard”- the open Burch colposuspension, our study demonstrates, that within experienced hands of urogynecologic surgeons, TVT represents a safe procedure with a low rate of intra- and postoperative complications. Moreover, TVT ascertains a quick recovery to normal bladder function resulting in a short hospital stay. However, complications have been reported in other reports and warrant observation of the patients, especially in the early postoperative phase. Follow-up of our patients will show the efficacy of TVT compared to open Burch colposuspension in the treatment of patients with GSI.

1) Hilton P. In: Smith ARB (Ed.) Urogynecology the investigation and managment of urinary incontinence in women. RCOG (1995) pp 79-87
2) Ulmsten U. Int J Urogyn J 7 (1996) 81-5