

## THE USE OF PUBOVESICAL SLING DURING RADICAL RETROPUBIC PROSTATECTOMY WITH REGULATION OF ITS TENSION AFTER THE OPERATION

### Hypothesis / aims of study

We evaluated the results of urethral fascial sling application during radical retropubic prostatectomy (RP) with regulation of its tension after the operation for correction of urinary incontinence.

### Study design, materials and methods

A total of 24 patients underwent fascial sling placement as a step of prostatectomy. A fascial leaf, obtained from the rectus fascia was placed under the bladder neck close to the anastomosis. The sling sutures were passed through the fascia 2-3 cm laterally to midline at the inferior end fixed in the "Kharkov antenna" system for regulation of sling tension. The "Kharkov antenna" system is a device constructed of two tubes allowing to increase and decrease tension of sling ligatures (one of the tubes is a carrier, the other one is a fixing device). It is placed in subcutaneous fat tissue and its end is above the skin level in the area of postoperative wound.

All the slings were tension-free. The Foley catheter was removed 3 weeks after RP. In patients with urinary incontinence the tension of sling ligatures was increased. The tension was regulated over 2-14 days with 1-3 day interval. Upon the achievement of continence, the "Kharkov antenna" system was removed with preservation of the necessary degree of sling tension. These 24 men were evaluated using pad count, postvoid residual urine volume, uroflowmetry and patient-completed questionnaires. Retrospectively, incontinence and complication rates in these men were compared to those of 35 men who had not undergone sling placement during RP (control group).

### Results

In 2 months 91,7% of the patients in the sling group reported using either no pad or one pad a day, vs 22,9% of men in the control group. In 12 months, 95,8% of the patients in the sling group reported using either no pad or one pad a day, vs 85,6% of men in the control group. Stricture was the most common complication that occurred in 6 (25%) men of the sling group and in 6 (17,1%) men of the control group.

### Interpretation of results

The patients in the sling group, who developed strictures had the following risk factors for urinary incontinence: age > 65 years, obesity, resection of bladder neck, large size of prostate, tumor stage > T2. All complications, in both groups were managed in outpatient department. There is high incidence of strictures caused by excessive tension of ligatures.

### Concluding message

We believe that sling application during RP and adjustment of sling tension can improve continence immediately and in later periods after the operation.

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<b>Is this a clinical trial?</b>	<b>Yes</b>
<b>Is this study registered in a public clinical trials registry?</b>	<b>No</b>
<b>Is this a Randomised Controlled Trial (RCT)?</b>	<b>No</b>
<b>What were the subjects in the study?</b>	<b>HUMAN</b>
<b>Was this study approved by an ethics committee?</b>	<b>Yes</b>
<b>Specify Name of Ethics Committee</b>	<b>The Commission on Ethics Questions of Kharkiv Regional Clinical Centre of Urology and Nephrology</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>Yes</b>