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## ADJUSTABLE PUBOURETHRAL SLING (“KHARKOV ANTENNA”) IN THE TREATMENT OF FEMALE STRESS URINARY INCONTINENCE

### Hypothesis / aims of study

We evaluated the results of pubourethral fascial sling application and regulation of its tension after the operation for female stress urinary incontinence (SUI).

### Study design, materials and methods

In the period from 2003 to 2009, 52 female patients with mild to severe SUI were prospectively operated using the system for sling tension regulation (“Kharkov antenna”). 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.

After installation, all the slings were tension-free. The Foley catheter was removed 1-2 days after the operation. In patients with urinary incontinence the tension of sling ligatures was increased. The tension was regulated over 2-7 days with 1 day interval. Upon the achievement of continence, the “Kharkov antenna” system was removed with preservation of the necessary degree of sling tension. These 52 women were evaluated using pad count, postvoid residual urine volume, uroflowmetry and patient-completed questionnaires.

### Results

25 (48,1%) patients demonstrated complete urinary continence immediately after catheter removal. 17 patients required one session of sling tension regulation, 7 – two sessions and 3 – three sessions. Afterwards 50 (96,2%) patients were considered cured and only 2 (3,8%) patients remained unchanged. The mean follow-up period was 25 months (range: 12-46). Deterioration of continence during the follow-up period was successfully treated in 2 patients. No significant postoperative complications were observed.

### Interpretation of results

The female patients with high grade of stress urinary incontinence required the application of sling tension regulation after the operation. No complications such as urethral erosion were observed.

### Concluding message

The “Kharkov antenna” allowed to regulate pubourethral sling tension in the early postoperative period. Due to this method good results were achieved in 96% of patients.

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