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WHY BROAD BASED DOUBLE FORCED SLING BY USING ULTRAPROMESH ?

Hypothesis / aims of study

To investigate our surgical results in 58 primary cases whom were operated by using the broad based double forced sling technique by rectus fascial fixation. Beyond the surgical technique, the importace of the mesh properities, mesh shape and the place of the mesh on the urethra was also discussed respectively.

Study design, materials and methods

A prospective study was performed on 58 consecutive female patients (30 with stress incontinence, 28 with mixed incontinence) who underwent broad-based double forced sling by using semiabsorbable mono and multiflament mesh materials in our department between April 2004 and April 2008. Operation succes was evaluated with pad test, quality of life score and patient questionnaire based outcome analysis.

Results

The success of the operation was evaluated using pad test, quality of life score, and patient questionnaire based outcome analysis. Based on the pad test results of postoperative follow-up; cure, improvement and failure rates were 75.8%, 17.2% and 5.17% at 6th month. The cure, improvement and failure rates were 86.2%, 8.6%, 5.17%, 91.37%, 3.44% and 5.17% for the postoperative 12th and 24th month follow-up respectively. Significantly lower QoL scores were recorded for postoperatif evaluations after 6, 12 and 24 months ($p<0.01$). Of the 58 patients, 48 (82.7%) were documented as 'cured'; 8 (13.8%), as 'improved', and 2 (3.5%) as 'failed' for irritative and obstructive symptoms in the postoperative 6th month according to the results of the questionnaire based outcomes analysis. In the same patient population the same percentages were 50 (86.2%), 6 (10.3%), 2 (3.5%), 53 (91.3%), 4 (6.89%) and 1 (1.72%) at the postoperative 12th and 24th month respectively.

Interpretation of results

Our results suggest that the macroporus and monoflaman properities of mixed ultrapro mesh resemble those of macropore monofilament polypropylene mesh. Macropore monofilament meshes are known to be the best among synthetic polypropylene meshes. The only difference is the absorbability of monofilament poliglecaprone in the ultrapro mesh. Poliglecaprone accomplishes the optimal tissue integration and reaction. In our study, the lower rate of complications in the ultrapro group was possibly due to the absorbability of poliglecaprone since it fixes the mesh to the tissue and impedes the mesh movement and friction that results in less erosion and lower complication rates.

Concluding message

Broad based double forced sling is an effective technique in the treatment of stress urinary incontinence and type of the mesh used in sling surgery is very critical point and further clinical and experimental studies are needed.

Table 1. Preoperative and postoperative I-Qol scores and pad test results

	Preoperative	**Postoperative 6th month**	**Postoperative 12th month**	**Postoperative 24th month**	**P Value***
No Mild Qol score	11 (18.9%)	54 (93.1%)	55 (94.8%)	54 (93.1%)	
No Moderate Qol score	46 (79.3%)	4 (6.8%)	3 (5.2%)	4 (6.8%)	
No Severe Qol score	1 (1.7%)	-	-	-	
Mean total Qol score ± SD	20.2 ± 5	2.8 ± 4.5	1.6 ± 5.2	1.1 ± 2.7	**<0.01**
No. Pad test (%)					
≥ 2 pad (Failure)	58 (100%)	3 (5.17%)	3 (5.17%)	3 (5.17%)	
1 little pad	-	10 (17.2%)	5 (8.6%)	2 (3.44%)	

(İmprovement) No pad (Cure)	-	45 (75.8%)	50 (86.2%)	53 (91.37%)	
Mean total Pad number ± SD	3.8 ± 1.5	0.6 ± 1.5	0.5 ± 2	0.2 ± 1.1	**<0.01**

* Wilcoxon' nonparametric test

Table 2. Postoperative complications

	No. Monofilament (Ultrapro) Mesh (%)	**No. Multiflament (Vypro) Mesh (%)**
Vajinal Erosion	1 (3.03%)	2 (8%)
Urethral Erosion	-	1 (4%)
Total complications	1 (3.03%)	3 (12%)
Sutur Granuloma	2 (6.06%)	2 (8%)
Temporary Urinary Retantion	3 (9.09%)	3 (12%)

Specify source of funding or grant	**No**
Is this a clinical trial?	**Yes**
Is this study registered in a public clinical trials registry?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**Ankara Atatürk Training and Research Hospital**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**