Comparison midurethral sling with and without needles. Efficacy and safety.


INTRODUCTION

Incontinence occurs when the relationship among the bladder, urethra, urethral sphincter, and pelvic floor is compromised, either due to physical damage or nerve dysfunction. Stress urinary incontinence is the most common form of urinary incontinence in women. It is characterized by the Involuntary loss of urine when an effort is performed, because there is increased abdominal pressure without detrusor contraction.

Midurethral slings with a mesh are the most frequently used surgical procedures for stress urinary incontinence. Two common approaches are used to place the sling at the mid-urethra. The sling is passed transvaginally behind the pubic bone with the retropubic approach whereas in the transobturator approach it is passed laterally through the obturator foramen.

OBJECTIVE

We evaluate the efficacy and safety of using a midurethral sling with or without needles for treatment of stress urinary incontinence.

PATIENTS AND METHODS

A retrospective study was performed in Hospital General Granollers, Spain, between 2004-2014. Women with stress urinary incontinence operated with midurethral sling surgery were selected. We analyze the results and complications between patients carrying Needleless® (NDL) and other tapes used, transobturator and retropubic midurethral sling (MUS).

We include a total of 416 patients affected by stress urinary incontinence, with or without associated genital prolapse and who are candidates for surgical treatment; 125 patients carrying Needleless® sling and 291 who received other sling.
RESULTS

There were statistically significant differences in the occurrence of early complications between using NDL vs. MUS ($X^2 = 0.017$, $p < 0.05$).

The use of Needleless prevent early complications with an OR 0.41 (95% CI 0.196 to 0.873), especially the urinary obstruction complication OR 0.957 (95% CI 0.923 to 0.992).

There were no statistically significant differences found in the occurrence of late complications between using NDL vs. MUS ($X^2= 0.241$, $p>0.05$).

De novo detrusor overactivity is the main late complication in both groups (4% NDL vs. 8% MUS), with no significant differences between them, but a decreasing trend in the NDL group.
Cure of stress urinary incontinence: 62.4% NDL (78) vs. 70.8% MUS (206).

No significant differences in evaluating healing ($X^2 = 0.092, p>0.05$).

But we find better results in the MUS group when we evaluate the amelioration of stress urinary incontinence OR 0.51 (95% CI 0.271 to 0.959)

**CONCLUSIONS**

Midurethral slings without needles are as effective as other slings with needles, plus less early complications occur.

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