

## RECLASSIFICATION OF COMPLICATIONS IN SURGERY USING MESH TO REPAIR DEFECTS OF PELVIC FLOOR

### Hypothesis / aims of study

To evaluate complications related to surgery with mesh for the solution of pelvic floor defects following the classification of the ICS / IUGA (2011)<sup>1</sup> and correlate these results with patient satisfaction.

### Study design, materials and methods

The study consists in a review of prospectively collected data on patients undergoing surgery antiincontinence and / or prolapse repair with tape or mesh performed between January 2000 and December 2011 (TVT-TVTO-Prolift®). All patients underwent anamnesis (type of incontinence, evolution time, quality of life in association with incontinence) and physical examination (urethral mobility, compartment and degree of prolapse).

The first control was performed one month after surgery. Subsequent checks were performed at 6, 12, 24, 36, 48 and 60 months postintervention, with anamnesis and physical examination in all prolapse cases. The data collected evaluate the recurrence of previous prolapse or not, and the personal assessment of the patient versus surgery: cured / improved/ same / worse and ICIQ-SF questionnaire.

All complications were reviewed and reclassified according to the recognized classification published by ICS / IUGA. For the collection of data was used Microsoft Access®, and for analysis and graphics was used SPSS version 19.0.

### Results

From January 2000 to December 2011, 1083 interventions to correct incontinence and prolapse using mesh procedures were performed. 242 complications that we have reclassified following the standardization published by ICS/IUGA were collected.

Regarding demographic of complications group compared to overall group, the patients were of a similar age group but had a higher body mass index (BMI). Logically, hospital stay and catheterization were higher in complications group, although the result of the ICIQ-SF did not differ. The history of previous pelvic floor surgery also were similar, the same as type of surgery performed (tension free bands, hysterectomies, simple colpoplasty and tension free mesh for prolapse) and anesthesia applied. Complications were found in 15.3% of patients, occurred intraoperatively: 27 bladder injuries (2.5%), 7 vascular injuries (0.6%) and 3 intestinal injuries (0.3%). There was also one anesthetic complication (0.1%).

During immediate postoperative period: 91 urinary retention (8.4%), 45 cystitis (4.2%), 5 patients suffered mesh infection (0.5%) and 7 had a hematoma of the vaginal vault (0.6%).

Looking at late complications, 7.4% had an extrusion of the mesh, 2.8% suffer chronic pelvic pain and 5.6% repeated cystitis. 1.1% had urinary retention, and one patient a vesicovaginal fistula. 1.8% required mesh section and 1.7% resection of it.

The reclassification of the results is shown in Figure 1 and summarized in:

- Tape antiincontinence group (n = 200): The three major complications, classified by the ICS/IUGA system were 4BT2S1 (8.2%), 4BT1S1 (2.2%) and 6BT2S4 (1.3%).
- Mesh for prolapsed group (n = 68): highlight the following complications: 4BT2S1 (1.02%), 2AT3S1 (2.2%) and 3BT3S1 (0.7%).
- Anterior mesh group (n = 24): The two main complications of this group were 4BT2S1 (0.4%) and 3BT3S1 (0.3%).
- Posterior mesh group (n = 4): The three complications found are 3BT3S1 and 7AT2S1 once each and 4BT2S1 twice.

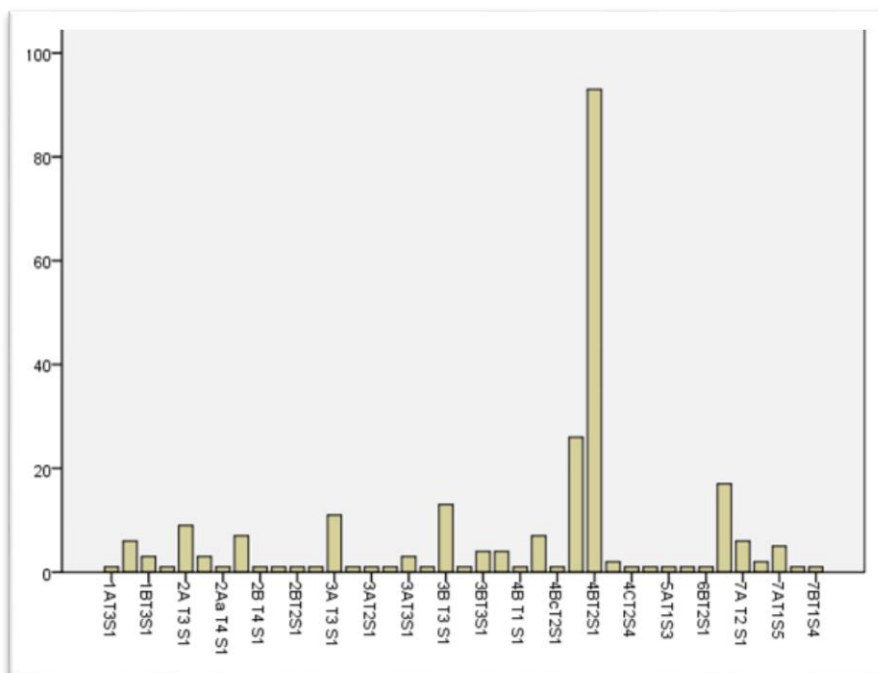


Figure 1.

Long term monitoring is indicated in Table 1 and Table 2.

	Total 6 m	Compl 6 m	Total 12 m	Compl 12 m.	Total 24 m	Compl 24 m.	Total 36 m	Compl 36 m.	Total 48 m	Compl 48 m	Total 60 m	Compl 60 m
<b>Cured</b>	74.4%	73.1%	71.9%	72.3%	64.5%	66.3%	62.4%	64%	53.6%	55.8%	44.9%	45.9%
<b>Improved</b>	19.9%	20.2%	20.6%	18.9%	25.2%	24.8%	29.1%	29.3%	37.5%	34.6%	35.1%	28.6%
<b>Same</b>	4.4%	3.6%	5.9%	6.45%	7.1%	6.6%	6.1%	5.3%	7.1%	8.6%	10.9%	14.3%
<b>Worse</b>	1.3%	3.1%	1.5%	2.3%	3.1%	2.2%	2.5%	1.3%	2.2%	0.9%	9.1%	11.2%

Table 1.

	Total 6 m	Compl 6 m	Total 12 m	Compl 12 m	Total 24 m	Compl 24 m	Total 36 m	Compl 36 m	Total 48 m	Compl 48 m	Total 60 m	Compl 60 m
<b>No IU</b>	70.7%	66.8%	67.5%	67.7%	59.6%	59.1%	59.7%	64.9%	54%	54.7%	47.6%	49.5%
<b>IUE</b>	5.4%	7.8%	4.5%	4.7%	6.2%	9.4%	6%	7.3%	6.8%	8.5%	8.4%	9.3%
<b>IUU</b>	20.5%	22.1%	23%	22.4%	25.3%	25.9%	25.9%	22.5%	29%	27.3%	27.6%	21.6%
<b>IUM</b>	3.4%	2.3%	4.9%	5.1%	8.7%	5.5%	8.3%	5.3%	10.1%	9.4%	16.3%	19.6%

Table 2.

#### Interpretation of results

We have not found any differences in type of surgery or anesthesia between the global group and the one with complications, although BMI is a risk factor.

Of the initial group of patients who underwent surgery, 77.7% did not suffer any complications.

With ICS/IUGA classification, we can describe the proportion of our complications, highlighting the top 5 ones: 4BT2S1 with 8.6% (the most common); 4BT1S1 (2.4%), 6BT2S4 (1.6%), 3BT3S1 (1.2%) and 3AT3S1 (1%).

We detected no impact on long-term outcomes compared to the group of patients with the same interventions.

#### Concluding message

BMI has a negative impact on the risk of complications, so patients should be informed of this risk.

Bladder injuries are the most common complication during surgery of our group.

#### References

1. Bernard T. Haylen & Robert M. Freeman & Steven E. Swift & Michel Cosson et al. An International Urogynecological Association (IUGA) / International Continence Society (ICS) joint terminology and classification of the complications related directly to the insertion of prostheses (meshes, implants, tapes) & grafts in female pelvic floor surgery. Int Urogynecol J DOI 10.1007/s00192-010-1324-9

#### Disclosures

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