

## AGING AS A PROMOTING FACTOR FOR BLADDER DYSFUNCTION ON POST PROSTATECTOMY INCONTINENCE

### Hypothesis / aims of study

Urinary incontinence is a debilitating complication following prostatectomy, resulting from sphincter deficiency, bladder dysfunction or both. The aim of this study is to determine the influence of aging on the promotion of these problems in incontinent patients submitted to prostatectomy and the chance of bladder dysfunction among this population.

### Study design, materials and methods

A total of 146 incontinent patients (21 after surgery for prostate cancer and 125 after surgical treatment of benign prostatic hyperplasia) were evaluated with multichannel urodynamic at least six months after surgery, to determine the cause of incontinence. Twenty-one patients were submitted to radical retropubic prostatectomy, 44 to open prostatectomy and 81 to transurethral resection of the prostate. Sphincter deficiency was defined as incontinence associated with increased intra-abdominal pressure. Bladder dysfunction included detrusor instability and/or decreased compliance. Statistical significance was determined by chi-squared and Student's *t* test analysis.

### Results

There was no statistical difference between the three surgical groups regarding urodynamic findings and patient age. Urodynamic findings and patients mean age are shown in table 1. The incidence of sphincter deficiency presented no correlation with aging. Patients presenting bladder dysfunction were 3.2 years older than patients without this abnormality ( $p = 0.02$ ) (table 2) and patients older than 70 years demonstrated increased risk (2.3 times) for this condition.

Table 1: Urodynamic findings X Age

Urodynamic findings	N	%	Mean age (y.o.)
DBC	13	9	75.8
DO	21	14	72.2
DO + SD	20	14	70.2
SD	56	38	67.3
SD + DBC	30	21	68.3
SD + DO + DBC	1	0,7	78.0
Normal	3	2	72.3
Obstruction	2	1	74.0

DBC: Decreased bladder compliance; DO: Detrusor overactivity; SD: Sphincter deficiency.  
 $p > 0,05$

Table 2: Presence of bladder dysfunction X Age

Bladder dysfunction	N	Mean age (y.o.)
No	61	67,8
Yes	85	71.0 *

\*  $p = 0.02$

### Interpretation of results

Sphincter deficiency is the main cause of post prostatectomy incontinence, occurring in 73.7% of them. However, bladder dysfunction may coexist with sphincter deficiency or be an isolated cause( 58.7% of them ). There was no differences on patients with sphincter deficiency regarding age and type of surgery. In the other hand, the incidence of bladder dysfunction ( alone or in association with sphincter deficiency ) clearly increased with aging.

**Concluding message**

Post prostatectomy urinary incontinence has multifactorial causes. Analysis of our incontinent patients after these surgical procedures defined those 70 years old or older as a risk group for the presence of bladder dysfunction( 2.3 more chance). In the same way, we can say there is a progressive chance of 5,3% per year of presenting bladder dysfunction in this population. It is clearly evident that the presence of bladder dysfunction is significant for treatment of the incontinence and its knowlegement is utmost important prior to treatment. Special care should be taken as much older is the patient.