Holmium Laser Enucleation of the Prostate (HoLEP) as an alternative to TURP and open prostatectomy. Cost analysis comparison: OP, TURP, HoLEP, PVP.

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INTRODUCTION AND AIM OF THE STUDY

Aim of the study is to evaluate effectiveness, safety and costs of the enucleation of the prostatic adenoma with Holmium Laser followed by mechanical morcellation as described by P. Gilling and to analyze costs of HoLEP versus TURP, OP and PVP (as reported in literature).

MATERIALS AND METHODS

From May 2006 to November 2007, 56 patients affected by **BPH** were treated with HoLEP (Versa Pulse 100W - Lumenis). All patients have been estimated preoperatively by means of symptomatic score (IPSS) and **P/F** study with PVR (post voiding residual) and 2 months after surgery by IPSS, uroflowmetry, PVR. At 6 months we evaluate P/F study in pts with preoperative bladder overactivity. In all pts transrectal prostatic u.s. has been performed to determine the volume of the adenoma. Moreover, operating times, post-operative hospital stay, early and late complications have been estimated. The first 4 pts have been treated by and under an expert tutor guide. The group of the firsts 40 cases, including those treated during learning curve, 2 groups of 40 homogeneous pts and an analogous group of pts treated by **PVP**, reported by literature, were analyzed for costs. Patients with associated pathologies who could prolong hospital stay or operative time (bladder stones or diverticula) have been excluded. For each group we evaluated the mean cost of daily postoperative hospital stay, cost of surgical theater, medical care, nursing care, devices, blood and derivates, drugs per patient.

RESULTS

In nine cases bladder stones were associated and simultaneously treated with Holmium Laser. The medium operative time has been 65 minutes. The medium u.s. estimated volume of the adenoma was 55cc while the medium weight of the dry tissue has been of 30 gr at the pathologist evaluation. We removed the catheter on the 1st or 2nd day after surgery and the medium time of post-operative stay in hospital has been 3 days. No

patient was given a blood transfusion. In 1 case we observed an injury of the prostatic capsula that needed a prolonged catheterization time. In 1 case a superficial lesion of bladder mucosa caused by morcellation occurred but it did not need treatment. In 3 pts we observed acute urinary retention that required a short recatheterization. No post-operative difference occurred in the patients with bladder stones. Irritative symptoms were present in 25 pts and in 3 cases prolonged beyond a month and treated with antinflammatory drugs. Improvement of flow parameters and **IPSS** were observed in all patients 2 months after operation. Results about cost analysis are reported in the table.

	Unit Cost	OP	***OP Cost***	TURP	***TURP Cost***	HoLEP	***HoLEP Cost***	*PVP*	***PVP Cost***
a. Post-op. H stay	280	6,9	***1932***	5,5	***1540***	3,1	***868***	*2*	***560***
b. Surgical theater	15	45	***675***	53	***795***	72	***1080***	*90*	***1350***
c. Medical care	100	2	***200***	1	***100***	1	***100***	*1*	***100***
d. Nursing care	20	7	***966***	3	***330***	1	***62***	*1*	***40***
e. Devices		200	***200***	250	***250***	150	***150***	*1250*	***1250***
f. Blood and derivates	150	0,1	***7,5***	0,05	***7,5***	0	***0***	*0*	***0***
g. Drugs	40		***276***		***220***		***124***		***80***
TOTAL			***4256,5***		***3242,5***		***2384***		***3380***

Legenda:

a. Cost in □ per mean post-operative hospital stay per kind of treatment
b. Cost in □ per mean occupation of surgical theater per minute per kind of treatment
c. Cost in □ per surgeon involved in treatment (hours)
d. Cost in □ per mean time of nursing care needed per treatment (hours)
e. Cost in □ for devices (disposable, fibers, loops, catheter etc.) per treatment
f. Cost in □ for blood and derivates per kind of treatment
g. Cost in □ for mean perioperative used drugs.

DISCUSSION

Our series reflects a beginner experience but demonstrates that the technique can easily be learned and performed also in little centers. The post-operative medium stay in hospital is longer than the one reported in literature. This is due to a few post-operative retentions and to our prudent acting in discharging pts.

CONCLUSION

Despite the inclusion in our series also of patients treated during learning curve and a careful hospital discharging, our data showed that HoLEP is economically favorable.

With HoLEP a single laser fiber can be used to treat almost 8-12 patients, the post operative hospital stay is shorter than in OP or TURP, medical and nursing care is poor, no blood transfusion is needed, the turn-over performance of patients is better. The cost analysis suggests a balancing of cost for purchasing the Holmium Laser machine after about 80 treatments versus OP and about 170 treatments versus TURP.

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CLINICAL RESULTS AND FUNCTIONAL EVALUATION OF PATIENTS UNDERGOING HIGH INTENSITY FOCUSED ULTRASOUND FOR PROSTATE CANCER.

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INTRODUCTION AND AIM OF THE STUDY

HIFU TECHNOLOGY IS A VALID ALTERNATIVE FOR THE TREATMENT OF LOCALIZED PROSTATE CANCER IN PATIENTS UNSUITABLE FOR RADICAL PROSTATECTOMY. THE COMBINATION OF TRANSURETHRAL RESECTION OF THE PROSTATE (TURP) AND HIGH INTENSITY FOCUSED ULTRADSOUND (HIFU) LIMITS THE RISK OF POSTOPERATIVE URINARY RETENTION. WE REPORT OUR EXPERIENCE WITH HIFU TREATMENT OF PROSTATE CANCER.

MATERIALS AND METHODS

FROM NOVEMBER 2004 TO SEPTEMBER 2007, 59 PATIENTS AFFECTED BY LOCALIZED PROSTATE CANCER UNDERWENT HIFU FOLLOWING TURP. IN 44 PATIENTS BOTH PROCEDURES WERE PERFORMED IN THE SAME SESSION (GROUP A); IN 15 PATIENTS HIFU WAS DELAYED (GROUP B). PATIENTS WERE DIVIDED INTO 3 GROUPS: LOW RISK (CT1-T2A, GLEASON SCORE <7, PSA □10NG/ML), INTERMEDIATE RISK (CT2B-C OR GLEASON SCORE=7 OR PSA >10) AND HIGH RISK (GLEASON SCORE □8, PSA >20 NG/ML). FOLLOW-UP INCLUDED SERIAL PSA MEASUREMENTS, PROSTATE BIOPSIES AND URODYNAMIC STUDY 6 MONTHS AFTER THE TREATMENT IN ALL PATIENTS. BIOCHEMICAL RECURRENCE WAS DEFINED AS PSA NADIR + 2MG/ML (ASTRO 2005 CRITERIA).

RESULTS

THE MEAN AGE AND MEAN FOLLOW-UP WERE 73.9 (±4.1) YEARS AND 19.3 (±9.1) MONTHS, RESPECTIVELY. MEAN PREOPERATIVE PSA WAS 12.3 (±6.3) NG/ML. THE TREATMENT WAS PERFORMED UNDER LOCOREGIONAL ANAESTHESIA IN ALL

PATIENTS; MEAN PROCEDURE TIME WAS 126 (±19.2) MINUTES AND MEAN HOSPITALIZATION WAS 3.9 (1.2) DAYS. COMPLICATIONS RATE WAS LOWER WHEN HIFU HAS BEEN DELAYED AFTER TURP (GROUP B) [SEE TABLE]. OVERALL AND CANCER RELATED SURVIVAL WERE 91.5% AND 98.3%, RESPECTIVELY; SIX MONTH PROSTATE BIOPSY WAS NEGATIVE IN 83.0% OF PATIENTS. MEAN PSA NADIR WAS 0,38 (±0.5) NG/ML; PARTICULARLY, PSA NADIR WAS 0.05, 0.16 AND 0.68 IN LOW, MEDIUM AND HIGH RISK GROUP, RESPECTIVELY (P0.009). AMONG THE 53 VALUABLE PATIENTS, BIOCHEMICAL RECURRENCE FREE SURVIVAL WAS 75.5%; PARTICULARLY, BIOCHEMICAL RECURRENCE OCCURRED IN 0%, 16.7% AND 39.1% OF LOW, MEDIUM AND HIGH RISK PATIENTS, RESPECTIVELY (P0.02).

%	UTI	MILD INCONTINENCE I - II	SEVERE INCONTINENCE III	URETHRAL STENOSIS	BLADDER NECK STRICTURES	AUR	RECTO URINARY FISTULA
OVERALL PTS	15.2	30.5	3.4	6.8	15.2	6.8	1.7
GROUP A	20.4	38.6	4.5	9.1	18.2	9.1	2.3
GROUP B	0	6.6	0	0	6.6	0	0

DISCUSSION

HIFU IS AN EFFECTIVE OPTION TO TREAT PATIENTS WITH LOCALIZED PROSTATE CANCER WHO ARE UNSUITABLE FOR RADICAL SURGERY. IN OUR EXPERIENCE HIFU OFFERS A LOCAL CONTROL OF THE DISEASE (IN TERMS OF NEGATIVE BIOPSIES) IN 83% OF PATIENTS AND A BIOCHEMICAL RECURRENCE FREE SURVIVAL IN 75.5% OF PATIENTS. THE INCIDENCE OF INCONTINENCE IS RELATIVELY HIGH.

SPLITTING TURP AND HIFU INTO TWO DIFFERENT SESSIONS SEEMS TO REDUCE POSTOPERATIVE COMPLICATIONS AND IMPROVE PATIENT TOLERANCE OF THE PROCEDURE. PARTICULARLY, THE RATE OF INCONTINENCE OF GROUP B PATIENTS IS SIGNIFICANTLY LOWER THAN GROUP A PATIENTS ($P<0.05$).

CONCLUSION

FURTHER STUDIES WITH LONGER FOLLOW-UP AND LARGER PATIENT POPULATION ARE NEEDED TO OBTAIN MORE ROBUST EVIDENCE.

Abstract 37

HIGH INTENSITY FOCUSED ULTRASOUNDS (HIFU) FOR PROSTATE CANCER: RESULTS ON CONTINENCE

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INTRODUCTION AND AIM OF THE STUDY

High Intensity Focused Ultrasound (HIFU) is a technique using ultrasounds to produce tissue heating and destruction. In HIFU, the ultrasound beam that is generated has a very high intensity in the focal area, which rapidly decreases in the surrounding zone of tissue. Focused ultrasound waves are capable of inducing sharp increases in temperature (up to around 70°C to 100°C) in a few seconds, destroying a well-determined zone of tissue, while the surrounding region remains intact. The volume of tissue destroyed by a single burst of ultrasound is termed the elementary lesion. To create large lesions, several elementary lesions are made side by side, by mechanically moving the transducer. This technique has been shown to be effective in the treatment of localized prostate cancer or as salvage treatment after radiotherapy (1). Few data have been produced on functional outcomes after HIFU and, in particular, on continence. Aim of this study was to evaluate continence maintenance/recovery in patients treated with HIFU either as primary treatment of prostate cancer (PC), either as salvage treatment for local recurrence after radical prostatectomy (RP) or radiotherapy (RT).

MATERIALS AND METHODS

From February 2003 to June 2007 a total of 268 patients underwent HIFU as primary or salvage treatment for PC at our Institution; 234 patients received HIFU as primary treatment and 34 as salvage treatment after RT (16) or RP (18). Mean age was 74,3 (±4,7) years; median PSA was 7,8 ng/ml; Gleason score range was 6-9. Mean prostate volume was 43 ml in patients receiving HIFU as primary treatment, whilst it was 21 ml in patients treated after RT. Mean volume of local recurrence after PC was 1,7 ml. HIFU was performed with the Ablatherm® (EDAP SA, Vaux-En-Veline, France) according to the technique described by Chaussy (2) if performed as primary treatment; all patients underwent a trans-urethral resection of prostate (TURP) before HIFU; 9/16 patients treated

after RT underwent TURP. In patients receiving HIFU as primary treatment the “standard” protocol was used, whilst in patients treated after RT or PC a less intensive protocol of treatment (e.g. using less energy for less time) was used. Patients were evaluated 1, 3, 6, 9 and 12 months after HIFU by means of voiding diaries. After 3 month follow-up patients reporting incontinence were treated by means of pelvic floor muscle exercises. Patients who reported incontinence before HIFU were excluded from the study.

RESULTS

Results are reported in the table.

	All pts. (268)	Primary treatment (234)	After RT (16)	After RP (18)
% continent pts (1 month follow-up)	60,33	58	75	77,7
% continent pts (3 month follow-up)	79	79	75	83,3
% continent pts (6 month follow-up)	92,4	93	87,5	89,4
% continent pts (12 month follow-up)	95,8	96	93,8	94,7
Number of pads (12 month follow-up) (mean)	1,5	1,5	2,0	2,0

Legend: Number of pads was calculated considering only incontinent patients

DISCUSSION

HIFU is a good therapeutic option to treat localized PC and local recurrence of PC. Negative biopsies are found in 80-93% of treated patients (1). This procedure is easily performed in loco-regional anaesthesia, even in older patients with co-morbidities. Urinary incontinence is a common complication of treatments for PC: it is estimated to be present in as much as 10-15% of patients after RP and 5% of patients after RT (3). According to our data, transient urinary incontinence is quite common after HIFU, being present in around 40% of patients one month after HIFU. On the other hand, continence recovery is obtained in the majority of patients within 6 months after HIFU: less than 8% of patients remain incontinent at this follow-up. One year after HIFU only 4% of patients remain incontinent. It is worth noting that these results were obtained in a quite old population, being the mean age 74,3 years. Patients treated for localized prostate cancer or after

RP/RT show similar continence rates at one year follow-up. Continence recovery seems to be faster in patients receiving HIFU for local recurrence of PC, probably because the treatment time is shorter and the dose of ultrasound administered lower.

CONCLUSION

HIFU is a good therapeutic option to treat PC which determines only transient incontinence in a significant number of patients. Percentage of permanent incontinence is around 4% and seems lower than that reported after RP and similar to that reported after RT.

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Abstract 38

SENSITIVITY OF 1-HOUR PAD TEST TO CHANGE IN TIME OF INCONTINENCE STATUS AFTER PROSTATECTOMY

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INTRODUCTION AND AIM OF THE STUDY

Pad testing is a simple, non-invasive and effective method to quantify the amount of urine loss in patients with urinary incontinence. The short-term tests are easy, quick, and provide immediate information. The pad weight result can serve as an excellent and objective outcome procedure before and after treatment in patients with urinary incontinence. It is important that a test is capable of being responsive to change appropriately after change of medical condition. There are few studies in literature that assess the sensitivity of 1-hour pad test to change in time of incontinence status. The post-prostatectomy incontinence model is ideal for this purpose; in fact the majority of patients recover urinary control after 1 year from surgery, for a natural recovery of rhabdosphincter function. Aim of this study is to assess the validity and reliability of 1-hour pad test to detect the changes of post-prostatectomy incontinence, and its correlation with the number of episodes of urinary leakage and the results of a validated questionnaire.

MATERIALS AND METHODS

This prospective study was conducted between January 2005 and March 2006; 102 patients submitted to standard **RRP** were considered for this protocol. All patients were invited to complete Incontinence quality of life (I-QoL) questionnaire, a bladder diary for one week to assess the number of incontinence episodes frequency (IEF) and an ICS standard 1-hour pad test at 4, 16, and 24 weeks after catheter removal. Incontinence was measured by the number of pads used daily: we defined continence the use of 0 pads. A positive pad weight result was defined as more than 1 g leakage. Validity was assessed by calculating Spearmans' rank correlation coefficient between 1-hour pad test, IEF and I-Qol score. This test was used because the hypothesis of normality was rejected.

The responsiveness of 1-hour pad test to change was assessed by correlating the percentage change in the pad test with the percentage change in I-Qol score and in IEF (Chi-square test for difference in proportions).

RESULTS

After 4 weeks 22 (21,5%) patients were completely dry. After 16 and 24 weeks complete continence was achieved by 66 (64,7%) and 72 (70,5%) patients, respectively. The 1-hour pad test correlated well with the IEF (Spearman's coefficient of rank correlation (rho)= 0.450 p<0.0001, 95% Confidence Interval for rho = 0.280 to 0.592), and correlated significantly but much less strongly with I-QoI score (Spearman's coefficient of rank correlation (rho)= -0.360 p=0.0003, 95% Confidence Interval for rho = -0.518 to -0.178). The change in 1-hour pad test after improving the incontinence status correlated well with the improvement in the IEF and I-QoI (Spearmans' correlation coefficient). At 4 weeks 17 (16,6%) patients had 0-1 g of urine loss in the pad test, at 16 and 24 weeks 61 (59,8%) and 68 (66,6%) patients respectively lost 0-1 gr of urine in the pad. The difference in the proportions is statistically not significant (95% CI = -5.86 to 15.66, Chi-square= 0.508 DF=1 p = 0.4760).

DISCUSSION

A number of studies have reported poor reproducibility of test-retest 1-hour pad test; it has been shown that the amount of leakage is highly dependent on the amount of urine in the bladder. ICI recommends to improve the accuracies with a fixed bladder volume. However, very few studies assess the responsiveness of 1-hour pad test to change when incontinence status improves. In 2002 ICI suggested to make research to assess the usefulness of different pad test types to detect changes in incontinence status. In 2005 ICI this suggestion is not mentioned. But in the last 3-4 years there are very few studies on this subject. The capacity of 1-hour pad test to improve in relation to improvement of continence, e.g. after conservative or surgical treatment, could be very important and useful in clinical research more than in clinical practice.

CONCLUSION

This study demonstrates how the 1-hour pad test is sensitive to change following improvement of continence status after radical prostatectomy

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Abstract 39

TREATMENT OF MALE URINARY STRESS INCONTINENCE FOLLOWING RADICAL PROSTATECTOMY BY MEANS OF ADJUSTABLE BALLOONED DEVICES (PROACT™)

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INTRODUCTION AND AIM OF THE STUDY

The ProACT™ device (Adjustable Continence Therapy, Uromedica, Plymouth, MN, USA) consists of two post-operatively adjustable balloon implants placed via perineal approach bilaterally in a periurethral position at the bladder neck. Titanium ports, attached via discrete tubing to each balloon, are placed in the scrotum, allowing for subcutaneous, post-operative volume adjustment. Increasing the balloon volumes, coaptation of the urethra will increase and lift the bladder neck, which may improve continence, without compromising the bladder outlet. Aim of our study was to assess efficacy and safety of this device in male patients with urinary stress incontinence (USI) following radical prostatectomy (RP).

MATERIALS AND METHODS

A prospective evaluation of male patients with USI consequent to RP treated by means of ProACT™ device implant was started in July 2005. Inclusion criterion was: presence of mild to moderate USI following RP lasting more than 1 year after surgery. Exclusion criteria were: severe USI (severe USI was defined as use of □ 4 pads per day for this study), diabetes, recurrent UTI, biochemical or clinical recurrence of prostate cancer, haematuria, presence of urethral or bladder neck stricture (patients previously treated for a stricture were included if no significant bladder outlet obstruction was present as diagnosed by pressure/flow study), presence of severe detrusor overactivity (bladder volume of involuntary detrusor contraction appearance <200 ml). Pre-operative evaluation was performed by means of bladder diaries, urodynamic assessment and questionnaires on quality of life (I-QoL) (1). ProACT™ implant was performed according to the technique described by Hubner (2). Post-operative evaluation was performed every 3 months after

surgery and was based on the use of bladder diaries and I-QoL. Peri- and post-operative complications were also registered. Patients reporting no incontinence episodes or just rare incontinence episodes (only in case of strong physical activity) were defined “cured”. Patients with a <3 months follow-up were excluded.

RESULTS

From July 2005 to September 2007, 27 patients underwent ProACT™ implant. Mean follow-up was 15 (3-29) months. No serious peri- or post-operative complication was observed. In three cases the device was removed (as office procedure) due to urethral perforation, occurred 2, 13 and 15 months after implant, respectively. In two cases the devices were then reimplanted. Two to six post-operative balloon adjustments were performed (mean 3.1). At six month follow-up 23/27 (85,2%) patients were defined “cured”, according to the previous definition. The remaining four patients showed a significant improvement of daily episodes of leakages (from 8.6 to 3.6, p=0.03). Considering all patients, the number of incontinence episodes decreased from 7.2 to 0.5 per day (p=0.003). Pads used per day were 2.4 and 0.4 per- and post-operatively, respectively (p=0.001). I-Qol score was increased from 77,3 to 96,4 (p=0.01). No patient showed an increase of post-void residual urine (that remained <20 ml in all patients); 21/23 (91,3%, 77,8% of the total) patients were cured at their maximum available follow-up as well, with no significant worsening of the other considered parameters. Only one patient showed a decreased efficacy of the device, while the other one was lost at follow-up.

DISCUSSION

ProACT™ is a safe and effective treatment of mild to moderate USI after RP. 85,2% of the patients were cured after surgery and the remaining ones showed a significant reduction of the incontinence episodes. The post-operative adjustability of the device compressive effect seems to avoid complications in the majority of cases and in no patient produces any urinary retention. In our series, the percentage of cured patient is equal or higher to that reported by previous authors, probably due to the accurate patient selection, with the exclusion of severe USI and DO or patients with urethral stricture.

CONCLUSION

ProACT™ are a safe and effective treatment of mild to moderate USI after RP, at least if an accurate patient selection is performed.

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Abstract 40

SIGMOID NEOBLADDER: 13 YEAR URODYNAMIC FOLLOW-UP

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INTRODUCTION AND AIM OF THE STUDY

Aim of this study is to evaluate long-term urodynamic results of sigmoid orthotopic neobladder realized using a 20-25 cm. completely detubularized sigmoid colonic segment, remodelled in spherical shape as an orthotopic continent reservoir. The analyzed follow-up regarded a 13 year period.

MATERIALS AND METHODS

From 1993 to 2006 bladder replacement with a sigmoid colonic segment was performed on 122 patients, 106 men (86.9%) and 16 (13.1%) women, mean age 63.2 (range 42-77 median 64.12 ±7.65). Mean follow-up was 48.2 months (range 4-158, median 38.4 ± 58.3). 96 patients (86 M, 10 F) had evaluable data for this study. We analyzed clinical and urodynamic report stratified into four groups (A,B,C,D) based on follow-up times: 6 months (96 pts–group A), 2 years (52 pts–group B), 5 years (44 pts - group C) and 10 years (11 pts–group D) after surgery. All the data collected were obtained by means of: 3 day detailed micturition diary, two or more free uroflowmetry and pressure flow study.

RESULTS

Cancer specific survival was 66.0% at 5 and 10 yrs. Data from micturition diary at 6 months, 2, 5 and 10 years of follow-up showed a mean daytime frequency of 8.4, 6.25, 5.2, and 5.8, respectively. Data on continence are summarized in Table I. In Table II we have reported urodynamics findings regarding Voided Volume (VV), Residual Urine Volume (RUV), Maximum Neo-Bladder Capacity (MNBC), Maximum Peristaltic Pressure at MNBC (MPP at MNBC), Maximum Peristaltic Wave Pressure (MPWP) and Maximum Neo-Bladder Pressure at Maximum Flow (MNBP at Qmax).

Table I: continence

	Group A (pts 96)	Group B (pts 52)	Group C (pts 44)	Group D (pts 11)
Daytime continence	65 (67,7%)	39 (75%)	36 (81,8%)	8 (72,7%)
Night-time continence	44 (45,8%)	26 (50%)	20 (45,4%)	6 (54,5%)

Table II: Urodynamic findings

	Group A (pts 96)	Group B (pts 52)	Group C (pts 44)	Group D (pts 11)
Q Max (ml/sec)	11.32 (6-37)	12.62 (6-30)	12.60 (7-21)	10.78 (8.2-14.6)
MVV (ml)	237.56 (10-538)	320.83 (175-600)	381.78 (180-660)	380.36 (305-440)
RUV (ml)	78.15 (0-450)	49.17 (0-150)	61.11 (0-100)	56.36 (30-80)
MNBC (ml)	316.33 (180-540)	365.83 (130-600)	440.67 (200-680)	423.63 (320-490)
MPP at MNBC (cmH2O)	49.93 (16-140)	42.75 (15-70)	29.78 (12-70)	26.00 (19-38)
MPWP (cm/H2O)	54.52 (15-140)	46.08 (15-80)	28.89 (15-55)	26.72 (18-45)
MNBP at Qmax (cm/H2O)	95.38 (30-200)	79.3 (50-115)	71.67 (20-110)	57.63 (35-79)

Voided volume, MPWP, MNCB and MPP at MNBC improve over the years and a significant difference exists between group A and C ($p=0.0001$). Q max and RUV resulted constant during the follow- up ($p=0.328$, $p=0.315$). Group D does not evidence substantial differences with group C.

DISCUSSION

Statistic evaluation of our data has shown:

- No significant modification of Q max and RUV
- Progressive increase of voided volume and neo-bladder capacity
- Progressive decrease of peristaltic waves pressure during storage and at maximum neo-bladder capacity
- Maximum Neo-Bladder Pressure at Q max decreases during the first 2 years and then stabilizes.

CONCLUSION

Health-related quality of life after surgery is an important issue in the decision making process of urinary diversion following cystectomy. In our experience, sigmoid neobladder allows in the long-term period a good compliance with complete voiding and without severe reservoir dilatation as in the brief follow-up.