

LAPAROSCOPIC AND OPEN RADICAL PROSTATECTOMY: FUNCTIONAL RESULTS IN A SINGLE CENTRE SERIES

Hypothesis / aims of study

Laparoscopic approach for radical prostatectomy (RP) has been proposed with the aim to reduce hospital stay and convalescence and improve functional results (in particular on urinary incontinence) due to a more precise visualization of anatomical details (1). Previous reports affirmed that laparoscopic RP (LRP) shows comparable results to those of the open (ORP) technique on incontinence at one year follow up, but an earlier continence recovery (1,2). In literature, differences in definition of "incontinence" and in patients' follow-up do not allow to establish any conclusion on this point; thus, aim of this study was to compare functional results of LRP and ORP in a single centre series, by means of a standardized follow-up.

Study design, materials and methods

64 consecutive patients underwent RP for prostate cancer. 42 underwent extraperitoneal LRP, performed according to the technique described by Bollens (3), and the remaining 22 ORP. LRP was performed by a non skilled laparoscopic surgeon during a programme of training for this technique; on the other hand, ORP was performed by skilled surgeon. Their mean age was 62+/-5 years. Mean prostate weight was 45+/-14 g. Their median pre-operative PSA was 6,7 ng/ml. Gleason score was between 3+3 and 5+4. Patients were evaluated by means of visits at 1, 3, 6 and 12 months; evaluation was based on bladder diaries and questionnaires on quality of life (I-QoL).

Results

Mean operative time was 238 minutes for LRP and 150 minutes for ORP. Mean blood loss was 435 ml and no significant differences were noticed between LRP and ORP. No statistically significant differences were noticed in terms of patients' age, % of positive margins (around 20% for both interventions) and post-operative PSA (median 0,01). Differences were noticed in hospital stay (4,2 vs. 7,3 days, p=0,021) but not in days of catheterization (10 vs 11). Results on continence are reported in table 1. An improvement in functional results was seen in LRP patients, with 85% of the last 20 patients continent at 3 month follow up vs 46% of the first 22. No similar changes were seen for ORP.

	1 month			3 months			6 months			12 months		
	ORP	LRP	p	ORP	LRP	p	ORP	LRP	p	ORP	LRP	p
N. of incontinence episodes/day	5	2	0,01	4	2	0,03	3	2	ns	2,2	2	ns
N. of pads/day	2	1	0,01	2	1	0,01	1,4	0,8	ns	0,9	0,8	ns
I-QoL	65	81	0,03	71	85	0,03	82	88	ns	85	92	ns
% of continent patients	37	60	0,04	56	69	ns	68	80	ns	79	82	ns

Interpretation of results

Our results confirm data from literature: LRP seems to guarantee an earlier continence recovery, but the number of continent patients at one year follow up is comparable to that after ORP. In incontinent patients, even the severity of incontinence seems to be similar after the two procedures. Anyway, it is important to underline that, in our series, LRP was performed by a surgeon in "learning curve" for this procedure, whilst ORP was executed by a skilled surgeon. This consideration can explain the reason why results of the last patients who underwent surgery are so much better than those of the first.

Concluding message

LRP is a good alternative to ORP, with an earlier recovery of continence; the learning curve of this procedure is rather stiff and functional results are related to the experience of the surgeon.

References

- 1) J Urol. 2005 Apr;173(4):1072-9
- 2) Urology. 2003; 62: 292.
- 3) Eur Urol 2001; 40: 65

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HUMAN SUBJECTS: This study did not need ethical approval because Normal clinical treatment but followed the Declaration of Helsinki Informed consent was obtained from the patients.