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EARLY CONTINENCE RECOVERY AFTER LAPAROSCOPIC RADICAL PROSTATECTOMY WITH OR WITHOUT RESTORATION OF POSTERIOR ASPECT OF THE RHABDOSPHINCTER

Hypothesis / aims of study
Urinary incontinence is one of the major drawbacks of radical prostatectomy (RP) due to temporary or prolonged deficiency of the rhabdomyosphincter (RS). Anatomical reconstruction of the posterior aspects of RS has been advocated for a faster recovery of continence after RP (1, 2). The aim of this study was to evaluate the early continence recovery after laparoscopic RP with or without restoration of posterior aspect of the RS, assessing the continence status at 3, 30, and 90 days after catheter removal.

Study design, materials and methods
After institutional approval, from March 2006 to October 2007, a two-arm randomized trial was carried out with 300 consecutive patients. Group A (153 patients) underwent standard laparoscopic RP and group B (147 patients) underwent laparoscopic RP with RS reconstruction. Continence was defined as no pads or one diaper/24 h. The continence status was assessed 3, 30, and 90 days after catheter removal. Comparison of continence rate within each time point between groups was performed by the Pearson x2 test.

Results
At 3 days after catheter removal, 31% of Group A patients versus 76% of Group B patients ($p = 0.00002$) were continent. A statistically significant difference was also present at 30 and 90 days (respectively 38.4% vs 85.2%; $p = 0.0004$ and 68.6 vs 90.5%; $p = 0.0007$).

Interpretation of results
Early continence was significantly improved in the patients who underwent the anatomical reconstruction of the posterior aspects of RS. Denonvilliers fascia, the dorsal aspect of the prostate, and the posterior median raphe with the connected dorsal wall of the RS form a unique musculofascial plate that constitutes an important support structure within the pelvis and appears to serve as a fixation point for the muscle fibres of the RS. The musculofascial plate is a dynamic suspensory system for the prostatomembranous urethra.

Concluding message
The posterior reconstruction of the RS is an easy, reproducible and effective technique for early continence recovery after laparoscopic RP.

References
(1) Eur Urol. (2007) 52; 376-83
(2) Eur Urol. (2007) 51; 996-1003

Specify source of funding or grant	**None**
Is this a clinical trial?	**Yes**
Is this study registered in a public clinical trials registry?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**Comitato etico Azienda Ospedaliera "Luigi Sacco"**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**