Robotic vs open prostatectomy in a laparoscopically naive centre: a matched-pair analysis.

Rocco B, Matei DV, Melegari S, Ospina JC, Mazzoleni F, Errico G, Mastropasqua M, Santoro L, Detti S, de Cobelli O.

Abstract

OBJECTIVE: To compare the early oncological, perioperative and functional outcomes of robotic-assisted radical prostatectomy (RARP) vs open retropubic RP (RRP) in a laparoscopically naive centre, as robotic assistance aids the laparoscopically naive surgeon in minimally invasive prostate surgery, by offering magnification and superior dexterity.

PATIENTS AND METHODS: From 1 November 2006 to 31 December 2007, 120 patients had RARP; this group was followed prospectively and evaluated for early oncological, perioperative and functional outcomes (measured at 3, 6 and 12 months after surgery), and compared to a historical control group of consecutive patients who had RRP from 20 May 2004 to 28 February 2007. All patients were operated by the same laparoscopically naive surgeons. The comparison was by matched-pair analysis.

RESULTS: The baseline characteristics of the two groups were equivalent, although there was a higher percentage of patients with pT3/pT4 disease in the RRP group. As a proxy for oncological outcome, positive surgical margins were equivalent in the two groups (22% RARP vs 25% RRP, P = 0.77). The overall mean (range) surgical duration was significantly longer in RARP group, at 215 (165-450) min vs 160 (90-240) min in the RRP group (P < 0.001). However, RARP had a statistically significant advantage over RRP for estimated blood loss, of 200 vs 800 mL (P < 0.001), duration of catheterization (6 vs 7 days P < 0.001) and length of stay (3 vs 6 days, P < 0.001) The 3, 6 and 12-month continence rates were 70%, 93% and 97% vs 63%, 83% and 88% after RARP and RRP, respectively (P = 0.15, 0.011 and 0.014). The 3, 6 and 12 month overall potency recovery rate was 31%, 43% and 61% vs 18%, 31% and 41%, after RARP and RRP, respectively (P = 0.006, 0.045 and 0.003).

CONCLUSION: Our initial experience showed the feasibility of RARP in a laparoscopically naive centre. RRP seems to be a faster procedure, whereas RARP provided better results in terms of estimated blood loss, hospitalization and functional results. The early oncological outcome seemed to be equivalent in the two groups.

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