Re: Robot-assisted Laparoscopic Prostatectomy Versus Open Radical Retropubic Prostatectomy: 24-month Outcomes from a Randomised Controlled Study
Coughlin GD, Yaxley JW, Chambers SK, et al

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Expert's summary:

This randomised controlled study (RCT) compared functional and oncological outcomes between open retropubic and robot-assisted laparoscopic radical prostatectomy (RP). More than 150 patients underwent surgery in each arm and were followed for a median period of 24 mo. According to the urinary function domain of the Expanded Prostate Cancer Index Composite (EPIC) there was no difference in achieving continence between the two groups (90.86 vs 91.33). Similarly, the EPIC sexual domain (46.90 vs 45.70) and the International Index of Erectile Function Questionnaire (33.89 vs 33.95) showed equivalent scores between the two groups.

At 24 mo after RP, biochemical recurrence was higher among the patients who underwent open surgery (9% vs 3%; $p = 0.0199$), while there was no difference between the groups in radiological progression of the disease or the need for further oncological therapy.

Expert's comments:

Advanced open surgical techniques and increased utilisation of minimally invasive approaches have been introduced to improve the oncological efficacy and reduce the complications and side effects of RP. However, there is currently a lack of head-to-head randomised comparisons between the two procedures. The RCT published by Coughlin et al tried to cover this gap. However, instead of enlightening the field, the current study may further confuse readers as both its functional and oncological outcomes contradict the existing literature.

Current meta-analyses favour robotic over open RP in terms of the functional outcome at 12 mo post-RP [1,2]. In addition, most of the updated literature supports no difference in biochemical recurrence rates between the two procedures [3,4].

Why did these differences emerge? One reason may explain both discrepancies. The RCT was powered only to assess health-related and domain-specific quality-of-life outcomes over 24 mo. The meta-analyses published on functional outcomes were strongly biased as they included no RCTs, continence and potency outcomes were measured differently in the studies included, and most of the tools used were not validated. As a consequence, the RCT results should predominate over those from previous studies. On the contrary, as the RCT was not powered to show any difference in biochemical recurrence, these results should be taken into account with extreme caution.

The contradictory results indicate once again the necessity for well-conducted RCTs especially designed and powered to answer specific questions. Until then we strongly support the notion that oncological and functional outcomes are more surgeon-dependent than technique-dependent [5].

Conflicts of interest: The author has nothing to disclose.

References

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