Robotic radical prostatectomy, day-case surgery and cardiac health: an opposing paradigm?

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Dear Sir,

Robotic and laparoscopic prostatectomy have developed over the past years to become the gold standard of care for patients with prostate cancer. Very often, due to this rapid development in minimally invasive surgery, patients with significantly more co-morbidities are operated on, including cardiac conditions. This is also related to a larger more aging population. As a result, more patients are being operated on, very often as day cases.

New cardiology guidelines recommend continuous antiplatelet therapy for some patients with cardiac stents. Additionally, patients with cardiac stents require continuous therapy. However, more recently, perioperative aspirin show no increased blood loss, operative time, transfusion requirement, hospital stay or operative complications [2]. This is both a significant development for the patient and also for the prostatectomist.

Robotic prostatectomy provides a prolonged Trendelenburg position of about 40° and CO₂ pneumoperitoneum for surgical exposure with potential significant changes in hemodynamic and respiratory parameters. It was previously thought this contributed to risk of MI during robotic prostatectomy [3]. However, more recently it has been found pneumoperitoneum and head-down position increase filling pressures, without any clinical effect on cardiac performance [4]. Yet, these patients are more likely to benefit from cardiopulmonary exercise testing beforehand.

Venous thromboembolism (VTE) is a preventable condition that can be exacerbated by surgery in patients with pre-existing risk factors. The incidence of VTE varies from 1 to 5 % among men with prostate cancer undergoing open prostatectomy. However, recently this has been found to be much lower at 0.8 % [1]. This gives a clear significant advantage of robotic prostatectomy over open prostatectomy, where the risk is far higher. However, patients with risk factors should not be part of a day-case surgery programme.

The most important lesson is—appropriate patient selection beforehand with cardiopulmonary exercise testing as part of the assessment and appropriate aftercare—these patients should not be operated on as a day-case procedure.

Compliance with ethical standards

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Conflict of interest Author SS Goonewardene declares that he/she has no conflict of interest.

Ethical approval This article does not contain any studies with human participants performed by any of the authors.

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