

Editorial Comment from Dr Kadono to Anatomical dimensions using preoperative magnetic resonance imaging: Impact on the learning curve of robot-assisted laparoscopic prostatectomy

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**Editorial comment to The impact of anatomical dimensions using preoperative
magnetic resonance imaging on the learning curve for robot-assisted laparoscopic
prostatectomy**

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Robot-assisted radical prostatectomy (RARP) has been adopted widely for the treatment of localized prostate cancer. Prostate cancer patients naturally differ in terms of their body composition, including prostate size; therefore, difficult cases of RARP are encountered occasionally. Several studies have reported predictors of the difficulty of RARP, particularly for a prolonged operative time and estimated blood loss.^{1,2} The causes of difficulty are considered to be a narrow working space and a prostate with a size and shape that is difficult to remove. For example, several studies have reported that a large prostate and a large median lobe increased the difficulty of RARP.^{1,2} A large prostate not only is difficult to remove but also decreases the working space in the pelvic cavity. This manuscript discusses the evaluation of the anatomical dimensions of the pelvic space and prostate size using preoperative magnetic resonance imaging (MRI) for difficult RARP cases. The space of the pelvic cavity and visceral organs in the pelvis limit the movement of robotic arms during RARP. The ratio of prostatic volume to the estimated volume of the pelvic cavity was associated with a longer operative time and increased estimated blood loss.³ Both the viscera and fat occupy the pelvic space, and there are individual differences in the volume of fat—a large volume decreases the working space in the pelvic cavity. A study reported that the operative

time for RARP was longer and the estimated blood loss was higher in obese patients.⁴

Body mass index (BMI) is a convenient indicator of obesity; however, it cannot distinguish between the weight of fat and other organs or between the visceral and subcutaneous fat. A report suggested that BMI was not associated with the operative difficulty of RARP.¹ The involvement of intrapelvic fat in difficult RARP cases was not discussed in this report; therefore, more consideration of this is required. More experience of performing RARP makes easier to deal with difficulties during RARP. Therefore, the outcome of operations performed by experienced surgeons, e.g., the amount of bleeding and operative time, is considered to be unaffected except for the surgeon's perceived difficulty during the operation. The learning curve of RARP for stable operative times is short, but that for cancer control and good functional outcome is longer after learning the skills necessary to achieve a stable operative time.⁵ This report suggests that the experience of 50–100 cases of RARP is needed to optimize the console time and amount of bleeding without being affected by pelvic shape and prostate size. During the initial period of performing RARP, it might be recommended that surgeons avoid cases with a large prostate within a small and deep pelvis, which could be evaluated using MRI before the operation.

Conflict of interest

None declared

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