

SIZE – DOES IT MATTER (IN ROBOT ASSISTED PROSTATECTOMY)?

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Introduction: The processes in establishing an economically viable robotic programme are multiple and intricate. In order to produce a successful programme, operative times should be predictable. We sought to determine the pre-operative ultrasound volume and also prostate weight on operative time for individuals undergoing da Vinci robot assisted radical prostatectomy (RARP).

Patients and Methods: From February 2010 to November 2010, 50 men underwent RARP performed by one surgeon, at our institution. We analysed data from our prospective database comparing a number of different variables: pre-operative ultrasound volumes, operative console time, blood loss and prostate weight. Statistical analysis was performed using the Pearson r coefficient (and confidence intervals (CI)) to compare the continuous variables among the groups. A p value was determined in order to establish significance.

Results: Mean prostate weight was 54gm (range: 30-140gm), whilst mean blood loss was 510mls (100-2500mls). Mean console time was 149mins (96-243mins). Analysis revealed no significant relationship between console time with either pre-operative volume ($r = -0.02$; CI: -0.28-0.32; $p=0.89$) or prostate weight ($r = 0.03$; CI: -0.25 to +0.31; $p=0.83$). In addition, pre-operative volume ($p=0.16$) and gland weight were not associated blood loss ($p=0.88$). However, longer console times were associated with greater blood loss ($r= 0.43$ CI: 0.16 to 0.64) ($p=0.0025$) and that glands assessed as having larger pre-operative volumes were associated with greater prostate weights ($r=0.78$ CI: 0.63: 0.87 $p<0.0001$).

Conclusions: This study has demonstrated that prostate size is not associated with longer console times when completing RARP. Data also demonstrates that larger prostates should not be considered a contraindication for RARP if performed by an experienced robotic surgeon.