PE82 The use of multiple video assessment methods to determine the influence of surgical skill on potency and continency in patients after robot-assisted radical prostatectomy

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Beulens A.J.W.[1], Brinkman W.M.[2], Meijer R.P.[3], Koldewijn E.L.[1], Van Basten J.P.[4], Vanmerrienboer J.J.G.[5], Van Der Poel H.G.[6], Bangma C.H.[2], Wagner C.[7]

[1]Catharina Hosptial Eindhoven, Dept. of Urology, Eindhoven, The Netherlands, [2]Erasmus Medical Centre, Dept. of Urology, Rotterdam, The Netherlands, [3]University Medical Centre Utrecht, Dept. of Oncological Urology, Utrecht, The Netherlands, [4]Canisius Wilhelmina Hospital , Dept. of Urology, Nijmegen, The Netherlands, [5]Maasticht University, School of Health Professions Education, Maastricht, The Netherlands, [6]Dutch Cancer Institute-Antoni van Leeuwenhoek Hospital, Dept. of Urology, Amsterdam, The Netherlands, [7]Netherlands Institute for Health Services Research (NIVEL), Dept. of Urology, Utrecht, The Netherlands

Introduction & Objectives: A combination of surgical skill and perioperative events have its effect on postoperative outcome. Different video assessment methods can be used to asses surgical skills alone. This group developed the PROTEST assessment method in order to assess both surgical skill and perioperative events. In order to evaluate the effectiveness of the differrent assessment method our research question is: Which aspects of surgical skill and perioperative events can be related to postoperative outcome? Is it possible to measure surgical skill using the PROTEST Assessment template?

Materials & Methods: Patients who underwent a robot assisted radical prostatectomy in the Antoni van Leeuwenhoek Hospital were eligible for this study. Two cohorts containing two arms of patients were selected and matched. Surgical skills were measured using, the global evaluative assessment of robotic skill (GEARS), the Prostatectomy Assessment and Competence Evaluation (PACE). and the PROTEST Assessment template developed by this research group. As a fourth assessment method the videos were evaluated by two experts surgeon (the surgeon who performed the surgery and an independent expert in RARP, both with experience in >500 RARP). All assessors were blinded for the selected study arm and group of patient and were asked to evaluated all surgery on continence and erectile function.

Results: The GEARS and PACE assessment methods showed no difference in either cohorts. The results of the PROTEST assessment method showed a shorter duration of the nerve preservation phase of the surgery in the erectile dysfunct group versus the group with adequate erections. There were no differences in the other phases of the surgery in all groups of the study. One of the experts who evaluated the surgery's was able to determine continence in 90% of the patients and incontinence in 75% of the patients. The erectile function was accurately determined by this expert in 75% of the group with adequate erections and 83.3% in the group with erectile dysfunction. The assessments included the apical dissection of the prostate and the vesicle-urethral anastomosis phase of the surgery. The verdict was based on the length and thickness of the urethra and the thickness of the neuro-vascular bundles.

Conclusions: The results of this study showed the assessment of continence and erectile function by an expert reviewer gives insight into perioperative factors which could influence postoperative results. These factors were not assessed in the different assessment methods used in this study. Further research into the specific influence of the length and thickness of the urethra and the thickness of the neuro-vascular bundles is needed to clarify the relation between these aspects of the surgery and continence and or erectile function.