

A single centre study into post robotic radical prostatectomy fatigue and the impact on returning to work

Introduction

Fatigue has been described as a “subjective symptom of malaise and aversion to activity, or to objectively impaired performance”(1). Although fatigue might mean different things to patients and clinicians, it is commonly reported. Despite the mechanisms of fatigue not always being clear, there is an association with physiological and psychological stress(2) . Patients undergoing surgery for prostate cancer may therefore be at higher risk of experiencing fatigue, and this may have an impact on their work life.

Methodology

Patients who underwent robotic-assisted radical prostatectomy (RARP) at our institution from August 2021-July 2022 were identified. The study was registered with the local health board. Fatigue was measured using the validated “Multi Dimensional Fatigue Inventory” (MDFI)(3). Participants were asked to complete the questionnaire according to how they felt prior to surgery and how they felt 3 months post-surgery. Patients were contacted via post and via telephone to collect their results. They were also asked to report employment status pre- and post-operatively A cut-off score of ≥ 3 was used to signify a patient who was ‘fatigued’. Statistical analysis was performed with SPSS statistics.

Results

From the 82 patients that were contacted, 43 (52%) answered the questionnaires. Pre-operatively there were 8 (18.6%) patients who were classed as ‘fatigued’ compared to 10 (23.3%) post operatively ($p=0.727$). When comparing overall scores, there was no significant difference between pre-operativity (2.15) versus post-operatively (2.37) ($p=0.125$, $t=-1.564$). Differences different modalities of fatigue were also calculated which showed a significant reported reduction in the modalities of ‘Physical Activity’ ($p=0.003$) and ‘Reduced Activity’ ($p=0.047$) post-operatively (table 1). Three patients reported a change in employment status following their prostatectomy, but none of these correlated with a change in fatigue status.

Discussion

As far as we know, this is the first study to assess differences in pre- and post-operative levels of fatigue exclusively in patients undergoing radical-assisted robotic prostatectomy. Compared to similar studies that have analysed fatigue in patients undergoing non-robotic radical prostatectomy, our results are similar(4). However, the retrospective nature of this study lends itself to significant recall bias. Therefore, prospective study is required to truly assess the incidence of fatigue following robotic prostatectomy. This retrospective cohort has allowed us to validate our study methods prior to collecting prospective data.

References

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	Pre-Op Mean	Post-Op Mean	Std. Deviation	t	Two-Sided p
General Fatigue	8.86	9.88	3.91	-1.69	0.097
Physical Activity	8.83	10.85	4.09	-3.21	0.003
Reduced Activity	8.80	10.28	4.66	-2.05	0.047
Reduced Motivation	8.28	8.40	3.78	-0.20	0.084
Mental Fatigue	8.29	8.00	4.28	0.433	0.667

Table 1. Differences in between modalities of fatigue assessed within MDFI.

Report

Current progress

- The funding from the endourological has thus far given us the opportunity to perform a validation type study looking at reported rates of fatigue pre and post radical robotic prostatectomy
- The study has been registered with the Health Board
- The questionnaires were designed and sent to patients with a covering letter and FAQs (see attached).
- The cohort used were patients who underwent prostatectomy within the last 12 months
- Questionnaires were sent out to all identified patients, and these were followed up by telephone calls to those who had not returned the questionnaires via post (approximately 6 ½ hours of telephone consultations were performed). This gave us a response rate of 52%, with patients deemed non-participants if at least 2 attempts to contact were unsuccessful
- Data on the retrospective group was analysed with help from statisticians from Swansea University
- We have also started collecting data for our prospective group – all patients listed for RARP are asked to participate at the pre-operative urology clinic, and if they consent, are provided with the packs pre-operatively.
- Questionnaires are returned either on the day of the clinic or via a telephone call to collect the answers

Future Aims

- We are aiming to finish recruitment to the prospective group by Jan 2023, depending on number of participants
- Between September 2022- September 2023 approximately 120 patients will undergo RARP which will provide us with approximately 40 patients over our proposed study period with the option to extend if necessary
- We aim to have data ready to present at conferences by early next year

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