Research Article

Pamukkale Medical Journal
doi:https://dx.doi.org/10.31362/patd.1225431

Evaluation of quality of life and post-operative complications of our radical prostatectomy series for 5 years

Beş yıllık radikal prostatektomi serimizin postoperatif komplikasyon ve yaşam kalitelerinin değerlendirilmesi

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Posted date:08.01.2023 Acceptance date:17.03.2023

Abstract

Purpose: The aim of this study is to evaluate health status, erectile function, continence status and mental status of the patients. We also analyze demographic features and post-operative complications. We want to detect changings in surgical techniques and complication rates, so we will obtain accurate knowledges for the patients who will undergo radical prostatectomy in the future.

Materials and methods: 67 patient included to this study with permission of Pamukkale University ethic commission. We phoned patients and ask to come hospital to filling out forms and to ask few questiones. We suggest them to fill out generel health quality, IIEF, ICIQ and MMT forms. We also asked them how they decide to undergo operation, their satisfaction with the treatment and whether they would accept the same treatment again. We record demographic and follow-up informations of patient from database of our hospital.

Results: We found that the number of the patients who undergone radical prostatectomy increased over the years and the lenght of stay in hospital and the risk of additional operation for urethral stricture decreased.

Conclusion: Data from our study were compatible with the existing literature.

Key words: Radical prostatectomy, quality of life, complications.

Toktas C, Acar IC, Tuncay OL. Evaluation of quality of life and post-operative complications of our radical prostatectomy series for 5 years. Pam Med J 2023;16:384-390.

Öz

Amaç: Çalışmamızın amacı kliniğimizde son 5 yılda yapılan radikal prostatektomi ameliyatlarının hastaların genel sağlık durumları, erektil fonksiyonları, kontinans durumları ve mental durumlarını değerlendirmek ayrıca hastaların demografik özellikleri ile post-operastif takiplerini retrospektif olarak değerlendirmektir. Bu değerlendirmeler sonucunda kliniğimizde yapılan radikal prostatektomi ameliyatlarının yıllar içinde teknik ve sonuçlar açısından değişimi saptanacak ayrıca önümüzdeki yıllarda bu ameliyatın önerileceği hasta grubuna sunulabilecek somut verilere ulaşılabilecektir.

Gereç ve yöntem: Çalışmaya Pamukkale Üniversitesi Tıbbi Etik kuruldan alınan izinle toplam 67 hasta dahil edildi. Hastalar telefonla aranarak hastaneye çağrıldı. Hastalara genel sağlık durumu, 11EF, ICIQ ve MMT sorgu formları uygulandı. Ayrıca hastalara operasyona karar aşamasındaki tutumları, tedavi memnuniyetleri ve aynı tedaviyi tekrar kabul edip etmeyecekleri soruldu. Ardından hastaların operasyon ve operasyon sonrası takip bilgileri hastane hasta takip sisteminden kaydedildi.

Bulgular: Çalışma kliniğimizin son 2 yılda radikal prostatektomi sayısında artış olduğu ayrıca vaka sayısında artışla birlikte hastaların hastanede kalış sürelerinin ve darlık nedeniyle ek girişim riskinin azaldığı saptanmıştır.

Sonuç: Çalışmamızdan elde edilen veriler mevcut literatür ile uyumlu saptanmıştır.

Anahtar kelimeler: Radikal prostatektomi, yaşam kalitesi, komplikasyon.

Toktaş C, Acar İC, Tuncay ÖL. Beş yıllık radikal prostatektomi serimizin postoperatif komplikasyon ve yaşam kalitelerinin değerlendirilmesi. Pam Tıp Derg 2023;16:384-390.

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Introduction

PSA (prostate-specific antigen) and DRE (rectal examination) are often used for prostate cancer screening. Younger patients are diagnosed with PCa (prostate cancer), and more patients are undergoing RP (radical prostatectomy) surgery. However, RP can cause long-term urinary and sexual problems in some patients. In addition to the survival rates, the effect of the surgery on the quality of life of the patients should be carefully examined in each case separately and in a unique way. Many parameters affect patients' satisfaction with the treatment and their perceptions about the treatment. These are briefly; long-term cancer control, side effects of treatment, complications that may develop and quality of life after treatment.

The aim of this study is to evaluate the general health status, erectile function, continence, mental aspects of the patients who underwent RP in our clinic and to determine the changes over the years. As a result of this study, the technical development of RP surgeries performed in our clinic over the years and the results of the procedures will be determined. In addition, it is to provide concrete data that can be presented to patients for whom we recommend this surgery in the future.

This study was produced from the Medicine Specialization Thesis by Cihan Toktas MD.

Materials and methods

This study was performed at the Department of Urology, Pamukkale University Faculty of Medicine Hospital clinic. Of the 87 patients (N) who underwent RP surgery and knew that they had been diagnosed with cancer, the data of 67 patients (n) who agreed to participate in the study were included.

Detailed information about the study was given to the patients included in the study, information was given to the volunteers and their written consent was obtained. Ethics Committee approval was obtained for the study.

Inclusion Criteria:

1- Patients who underwent RP with Pca diagnosis in our clinic

Exclusion Criteria:

1- Those who underwent another intraabdominal / urinary surgery after RP.

2- Those whose quality of life changes for another reason after RP

Questionnaire filling method

Patients who met the criteria sought were contacted by phone and invited to the hospital after being given a brief information about the study. Patients who came to the hospital and agreed to participate in the study were informed in detail about the study. Then, the patients were given 4 query forms by a medical doctor who was not involved in the study and asked to fill out these forms. These forms are IIEF (International Index of Erectile Function), ICIQ (International Consultation on Incontinence Questionnaire, mini mental test and EQ-5D (also to benefit from general health care). After filling out the forms, the patient's name and an identification mark were not written on any of the inquiry forms. In the forms, the age and comorbidity, clinical stage, prostate biopsy Gleason score of all patients, the Gleason score of the surgery, prostatectomy material from the hospital information tracking system, the duration of hospital stay of the patients in the postoperative period, and the intervention status due to anastomotic stricture in the post-discharge period were recorded.

SPSS 15 (Statistical Package for Social Sciences) package program was used for statistical evaluations. In the analysis of the obtained data, Mann Whitney U test, significance test of the difference between the two averages and chi-square test were used. In statistical analysis, $p>0.05$ was accepted as significant value.

Results

The 67 patients included in the study had a mean age of 61.57 years. When we examine the total number by years, the number of surgeries performed in the last 2 years (34-Dark columns) was higher compared to the number of surgeries in the first 3 years (33-Light columns) (Figure 1).

The distribution of patients according to their clinical stages is as shown in Figure 2.

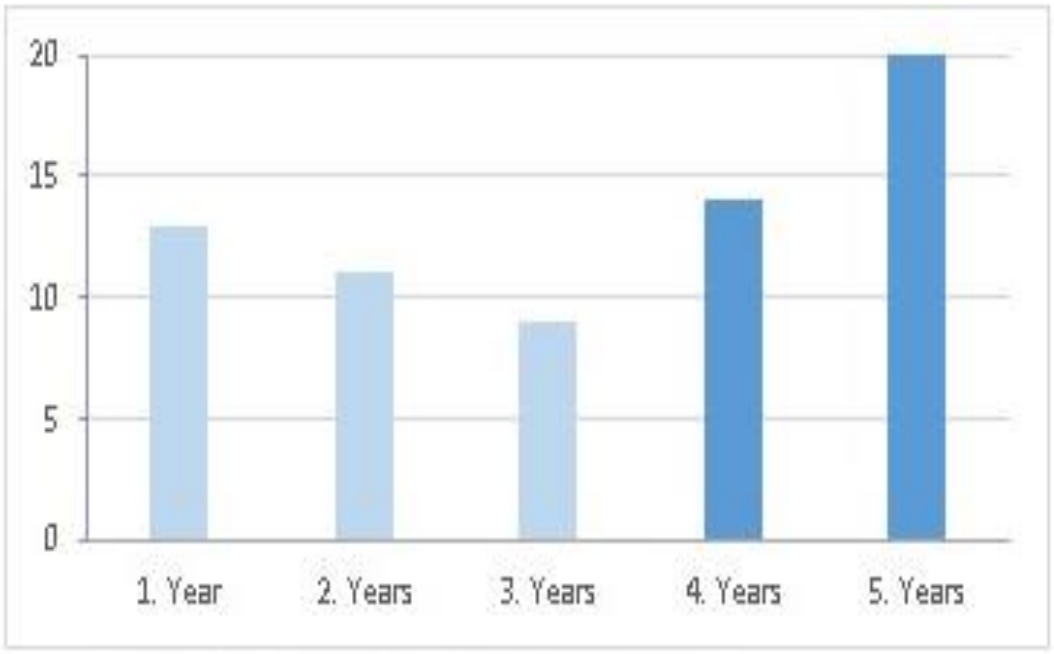

Figure 1. Number of RP by years

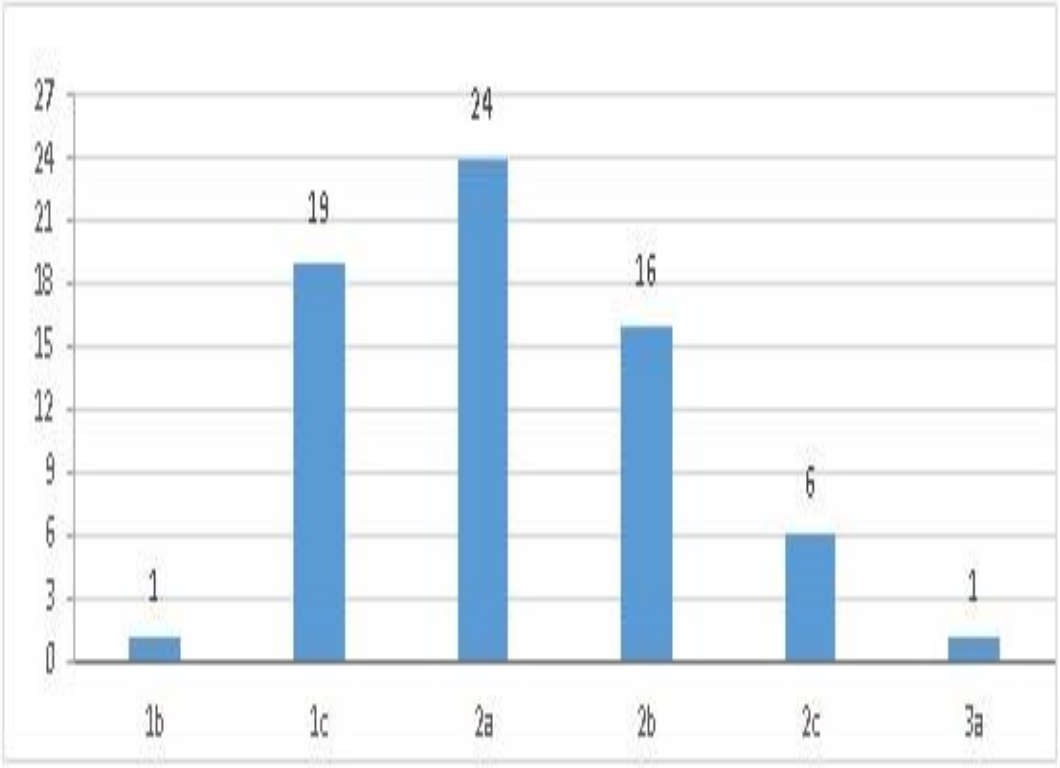

Figure 2. The clinical stages of the patients

The mean hospitalization period of the patients was calculated as 5.67 (±2.6) days. When the duration of hospitalization was analyzed according to the groups: Group 1 (first 3 years) average was 7.03 days, group 2 (last 2 years) average was 4.35 days, and there was a statistically significant difference between the groups (p=0.001) (Table 1).

Age, PSA value and biopsy Gleason score according to the groups are given in Table 2. There was a statistically significant difference in PSA values between the groups (p=0.034).

Table 1. The length of hospitalization of the two groups

	n	Duration of hospitalization	
Group 1	33	7.03 days	***p*=0.001**
Group 2	34	4.35 days	

Table 2. Age, PSA value and biopsy Gleason scores of the groups

	Group 1	Group 2	*p*
Age	60.30	62.76	>0.05
PSA	8.40	12.66	**0.034**
Biopsy Gleason Scores	6.4	6.5	>0.05

In the general evaluation of the patients, 18 (26.9%) of 67 patients were operated due to anastomotic stricture. We did not find a statistically significant difference in the comparison of the groups according to the years of operation and under/over the age of 60 (p>0.05).

When vesicourethral anastomotic stricture was examined, the number of procedures per patient was 0.57 (19/33) in Group 1 and 0.23 (8/34) in Group 2, and there was a statistically significant difference (p<0.05).

When patients are asked to evaluate their health status; The median of the scores they gave out of 100 ranged from 75 to 100 and the mean was 91.87 (±6.7). In the evaluation of the mini mental test scores of the patients, the mean score was found to be 25.9 (±1.85). When the patients were evaluated according to their ICIQ scores, it was found that 15 patients (22.4%) had no urinary incontinence. Of the 52 patients with urinary incontinence, 16 had severe scores of 8 and above, defined as the ICIQ score. With these results, severe urinary incontinence was observed in 23% of the entire patient group. There was no statistically significant difference between the incontinence rates of groups 1 and 2 (p>0.05).

When the IIEF values of the patients in group 1 and group 2 were compared, there was no statistically significant difference (p>0.05).

The satisfaction rate of our patients was 97%, and the rate of re-accepting the same treatment was 98%. The prostate cancer specific survival rate was 100% after a mean follow-up of 30 months, and these results are consistent with the literature.

In the interviews about the decision process, 9 (13%) of 67 patients followed the recommendations of the responsible doctor without questioning in the decision process, 32 (48%) decided in line with the doctor's recommendations together with the responsible doctor, and 26 (39%) patients stated that they chose surgery after doing research on PCA treatment after diagnosis.

Discussion

Prostate cancer is the 2nd most common cancer type in men and the 5th deadliest cancer type in 2020 [1]. Worldwide, 1.4 million new cases and 375,000 deaths are predicted annually [1, 2]. The use of PSA is gradually increasing and patients can be diagnosed at earlier stages in this way [3]. In the locally/locally advanced group, which constitutes as high as 87% of the patients, the 5-year relative survival rates are 100% [4].

Although the results of treatment options for localized PCa are close to each other, the risks they carry differ. While sexual and urinary problems are seen in RP patients, intestinal

problems are more common in radiotherapy patients [5-10]. However, in a study in which patients were followed for approximately 30 years, it was found that RP contributed approximately 3 years to life expectancy compared to untreated patients [11].

One of the indicators that determine the success in localized PCa treatment is patient satisfaction [12]. Therefore, it is recommended that patients be informed about the treatment process [13].

While there were only 86 studies on quality of life in prostate cancer between 1990 and 2000, this number was 243 in 2010 and 2011 alone [14].

Clear differences in favor of RP were reported in a study involving a total of 695 patients in which the non-procedure active surveillance and RP groups were compared [15]. The fact that radical prostatectomy is the only effective treatment method for localized PCa treatment, despite monitoring, has made this surgery more popular. Because the feeling of getting rid of the cancerous organ at the end of this surgery increases the quality of life of patients after surgery [16-19].

In patients with localized PCA, as well as in patients locally advanced with lymph node dissection, the recommendation for radical prostatectomy surgery is ‘strong’ in the European Association of Urology 2022 Pca guidelines [13].

The effect of patients’ feelings of being completely free of cancerous tissues on their quality of life was shown in a study of 223 patients in 2000. It has been reported that patients receiving maximum androgen blockade (MAB) as primary treatment had higher depression scores than the RP group [20]. Similar results were found by Johansson et al. [21].

Studies have shown that prostate cancer patients’ satisfaction with treatment with RP and the rate of re-admission to the same treatment are quite high (77-97%) [22-25]. As a result of our study, we noticed that patients prioritize cancer control above all else, and complaints of incontinence and erectile dysfunction remain in the background.

Studies show that the decision-making process for treatment also affects satisfaction. Miles et al. [26] reported that those who were dissatisfied with the treatment thought that the choice of treatment was rushed and that they did not make a second opinion decision on their own. It was also found that a significant portion of the patients were between the ages of 60 and 69. The results of the patients in our study are consistent with the literature.

Davison et al. [27] 155 patients who underwent RP were evaluated in the 1st year after surgery. Of these patients, 30% received opinions from at least 2 urologists before deciding on surgery, 32% received a consultation from a radiation oncologist before deciding on surgery, 84% (109 patients) negotiated with their doctor before deciding on surgery, 5% of them (7 patients) said that they took a collaborative role in line with the physician’s recommendations. A study that published in 2008 shows that 19,4% of the patients had no enough information about the surgery they were going to undergo [28]. These results were similar to the results in our study.

The results of these studies highlight the necessity of adequately informing patients about all treatment options after the diagnosis of PcA. Similarly, as stated in the quality of life study according to cystectomy and urinary diversion in patients with bladder cancer performed by Baser et al. [29] in our clinic, it is important to inform patients preoperatively without compromising oncological principles.

After radical prostatectomy, approximately half of the patients describe a decrease in sexual desire, and 80% of them describe a decrease in the frequency of sexual intercourse. 56.5% of patients say that their partner’s satisfaction with sexual intercourse decreases [30]. These factors are reported to increase patient satisfaction as the surgical experience of the health center where RP surgery is performed and the surgical team that performs the surgery increases.

It has been reported that vesicourethral anastomotic stricture is in the range of 24-45% in patients with post-surgical urethroscopic examination of patients with stress incontinence, and the anastomotic stricture occurs in the first 6 months [31-33]. The rate of 26% obtained in our study was similar to the studies in the literature.

In our study, anastomotic stricture developed in 16 of 18 patients (88%) who developed anastomotic stricture in the first 3 months.

Predictive factors for anastomotic stricture developing after radical prostatectomy were associated with patient age, operation time, and blood loss [34-36].

More complications and mortality are seen in clinics with a small number of operations compared to clinics with larger series [37].

As a result; as the number of patients undergoing RP surgery and their surgical experience increase, the length of hospital stay of the patients shortens significantly. In addition, the rate of additional interventions per patient for vesicourethral anastomotic stricture is significantly reduced. Informing patients about complications before surgery increases their satisfaction. Patients' satisfaction with radical prostatectomy surgery and our readmission rates are high. Radical prostatectomy surgery is a surgery with low per-op and post-op mortality rates.

Conflict of interest: No conflict of interest was declared by the authors.

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Ethics commite approval: Permission was obtained from Pamukkale University Non-Interventional Clinical Research Ethics Committee for the study (date: 17-5-2011 and permission number: 9).

Authors' contributions to the article

All authors have constructed main idea of the study. C.T. arranged the material also has done the evaluation of the data in the results. Discussion section written by C.A. and C.T.; L.T. reviewed and corrected the study. In addition, all authors discussed the entire study and approved the final version.