

QUALITY OF LIFE ANALYSIS OF PATIENTS WITH CASTRATE RESISTANT PROSTATE CANCER WHO UNDERWENT UROLOGICAL PALLIATIVE TREATMENT

Adrian Crişan^{1,3}, Horia Dan Mureşanu^{1,2}, Imola Miklos², Paul Deme¹, Ioan Ioiart^{1,2}

¹ Western University "Vasile Goldiş" Arad

² Arad County Emergency Hospital Urology Clinic

³ Arad County Emergency Hospital Intensive Care Unit

ABSTRACT. Prostate cancer is one of the most frequent malignancies in the world. Its incidence is in continuous growth especially in developed countries. There isn't a clear evidence of the patients with prostate cancer in Arad county. The aim of this study is to assess the improving of patients' qol after they underwent different types of urological palliative treatment. This study is a prospective one and it comprises 71 patients, diagnosed with CRPC who underwent urological palliative treatment. Our results show higher incidence of castrate resistant prostate cancer (CRPC) in patients from urban areas. The main urological palliative treatment applied to the patients was the transurethral resection of the prostate. Our study demonstrates the improving of the quality of life (QoL) after urinary drainage, we found an important improving of the ECOG scor.

KEYWORDS: Qol, CRPC, nephrostomy

INTRODUCTION AND OBJECTIVES

Prostate cancer is one of the most frequent malignancies in the world. Its incidence is of 65/100000 pers/year and it is in continuous growth especially in developed countries, and it presents a high mortality, 26/100000 pers/year (Eisbruch A et al 2013)

Androgen deprivation is the first line therapy for prostate cancer and it leads to biochemical (lowering of the PSA level) and clinical improvements, however this treatment is not curative, and eventually the disease becomes castrate resistant [Damber JE, 2005; Scher HI et al, 2008].

Nor in Romania neither in Arad county, there isn't a clear evidence of the patients with prostate cancer because of the lack of collaboration between urologists and oncologists.

The aim of this study is to create a clear evidence of the patients with prostate cancer in Arad County, to evaluate the rate of CRPC appearance, to assess the improving of patients qol after they underwent different types of urological palliative treatment.

MATERIAL AND METHODS

The study covers a period of 3 years, from October 2013 – October 2016 and comprises 71 patients with castrate resistant prostate cancer, who were diagnosed and treated in the Urology Clinic of Arad County Hospital.

The patients were evaluated by periodic blood tests (for detection of anemia and other blood dyscrasia, alkaline phosphatase level, serum creatinine and urea, PSA level), urine analysis, imaging methods (abdominal and transrectal ultrasonography, computed tomography, bones scintigraphy) and histopathological examination (the tissue samples were obtained by prostate biopsy or transurethral resection of the prostate). Histopathologically, the patients were divided into 5 risk groups according to the classification published in 2014 by the International Society of Urological Pathology and the evolution of these patients was analysed.

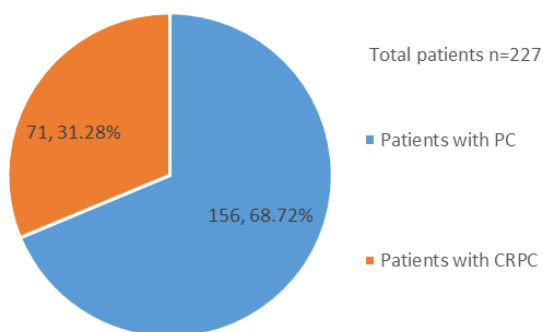
Inclusion criteria:

- Patients who signed the informed consent
- Patients diagnosed with CRPC
- Patients presenting urological complications of CRPC
- Patients who underwent urological treatment for CRPC

RESULTS

Between 2013-2016, 227 patients were diagnosed with prostate cancer at Arad County Hospital, Urology Clinic.

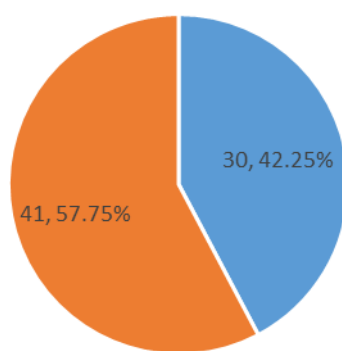
Of all patients 31.28% (71 cases) evolved to castrate resistant prostate cancer (figure 1).



Our study shows lower incidence of CRPC in patients from rural areas. We found 41 patients (57.75% of cases from a total of 71 patients) with castrate resistant prostate cancer from urban areas (figure 2).

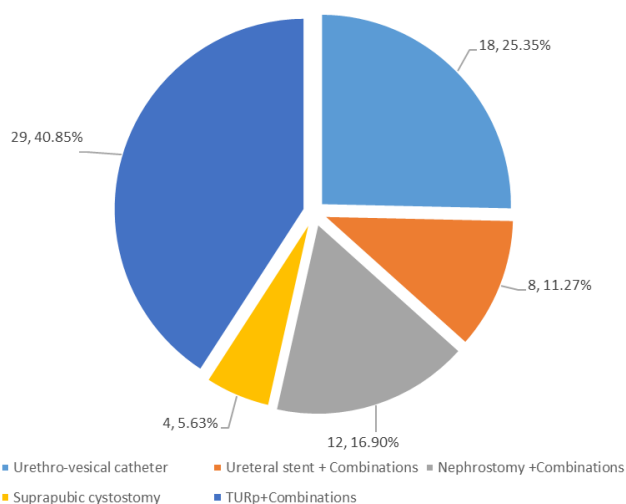
Environmental origin of the patients, total patients n=71

■ Rural ■ Urban

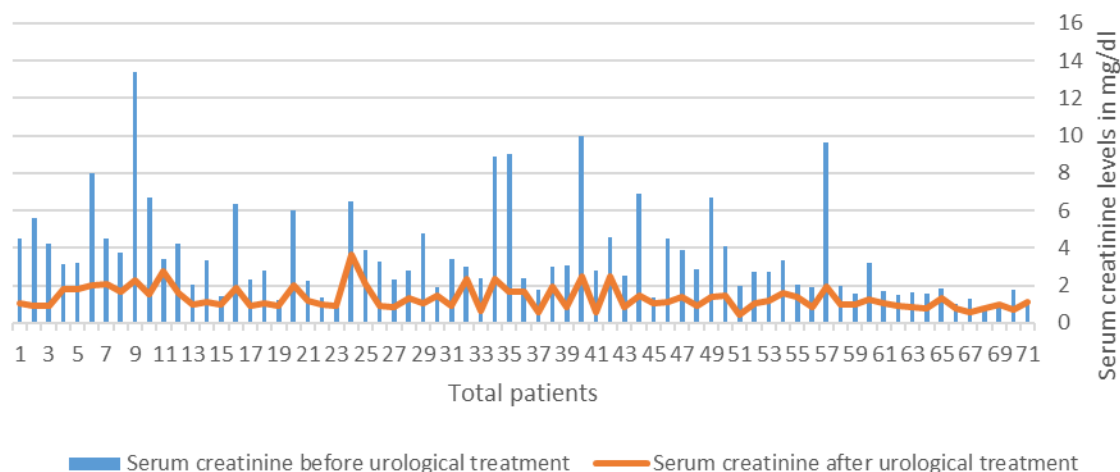


From the cohort we applied in 40.85% of cases (at 29 patients) transurethral resection of the prostate, alone or in combination with other urological palliative treatments. We used suprapubic cystostomy only in 4 cases, because of the presence of urethral strictures (figure 3).

Urological treatment, total patients n=71



Our study shows a reduction in serum creatinine in all patients after urologic treatment was applied.

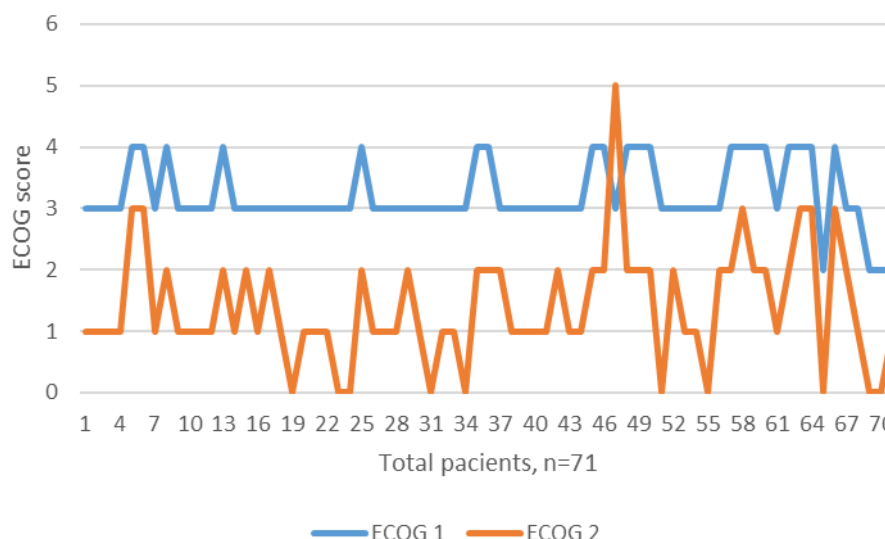


For the analysis of the evolution of patients state we applied a student T test for serum creatinine values. We found $0.0069 \leq p \leq 0.0139$, a statistical significant value, that demonstrates the effectiveness of urological treatments (tabel 1).

Table 1 Student T test

	<i>Serum creatinine before urologic treatment</i>	<i>Serum creatinine after urological treatment</i>
Media	3.568028169	1.324788732
Variations	6.187024628	0.368531026
Total patients	71	71
Variations	3.277777827	
Ipothetic mean difference	3	
Df	140	
T Stat	-2.490479159	
P(T<=t) one-tail	0.006963156	
T Critical one-tail	1.655810511	
P(T<=t) two-tail	0.013926312	
T Critical two-tail	1.97705372	

For a better analysis of the patients' evolution we applied the performance score ECOG (Eastern Cooperative Oncology Group) before and after urological palliative treatment (where ECOG=0 means an active patient, and ECOG=5 dead patient). Improvement in the patients' state can be easily noticed.



DISCUSSION

In our study, the prevalence of CRPC was 31.28% of total patients diagnosed with prostate cancer between 2013-2016. We found a higher incidence of CRPC in patients from urban areas.

In contrast to our study, a clinical trial from USA, conducted between 2001-2007, on 15361 patients, found a 17.8% prevalence of CRPC among the cohort patients diagnosed with prostate cancer [Alemayehu B et al, 2010].

Another study from USA about patients with prostate cancer, conducted between 2000 and 2008, found lower prevalence of CRPC, in 9.5% of cases [Cabrera C et al, 2010].

We observed the immediate improvement of the patients' quality of life after urological treatment was applied. We noticed a significant reduction of the serum creatinine and of the performance score ECOG.

The most applied urological palliative treatment was the transurethral resection of the prostate, alone or in combination with other urinary derivation methods.

CONCLUSIONS

In contrast to other clinical trials, we found a higher incidence of CRPC in Arad county, which is a warning sign on the unfavorable evolution of the disease and this should lead us to reorient the treatment of these patients.

In case of urological complications, surgical treatment is essential for the patients' survival.

In Arad county, the most utilized urological treatment for patients with castrate resistant prostate cancer was the transurethral resection of the prostate

alone or together with other different types of urinary drainage.

The urological treatments improve the patients quality of life and the ECOG performance score.

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CORRESPONDENCE:

Arad County Emergency Hospital, str. Andrenyi Karolyi nr. 2-4, Arad, Romania
 Tel: 0722842370
 E-mail: adriancrisan74@yahoo.com