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Research Article

### COMPLETE GERIATRIC EVALUATION AND QUALITY OF LIFE AFTER LOCALIZED PROSTATE CANCER RADIATION THERAPY IN THE AGED POPULATION

**Dr Areeba Saleem, Dr Ghania Shafqat, Dr Mehak Ali**  
Akhtar Saeed Medical and Dental College

**Article Received:** October 2020**Accepted:** November 2020**Published:** December 2020**Abstract:**

**Aim:** Radiotherapy can decrease personal satisfaction for prostate disease patients. Our target was to assess the impact of radiotherapy on QoL in men matured 77 years or more seasoned treated with radiotherapy for a confined prostate disease, and to distinguish indicators of diminished QoL.

**Methods:** We provisionally managed a battery of tests to screen 100 elderly patients for geriatrics, toxicity and quality of life before and two months after prostate disease radiotherapy (NCT 02876239). Patients aged 77 years who had undergone radiation therapy for the correction of confined prostate disease with or without treatment of androgenic difficulties (ADL) were qualified for inclusion in the study. Links between the quality of life of the patients surveyed and tumor attributes, radiotherapy treatment or, on the other hand, CGA limitations were investigated using Fisher's or Mann and Whitney's tests. Changes in the long-term quality of life limits were dissected using the Wilcoxon's test on the marked position. Our current research was conducted at Sir Ganga Ram Hospital, Lahore from March 2019 to February 2020.

**Results:** At the time of the study, scores for IADL disabilities were available in 53% of cases, decreased independence in daily life exercises in 17% of cases, psychological hindrance found in 23% of cases, gloom related to radiotherapy may decrease personal satisfaction of patients with prostate malignancy. Our objective was to evaluate the impact of radiotherapy on quality of life in men aged 75 years or older, treated with radiotherapy for confined prostate disease, and to distinguish indicators of decreased quality of life. Patients and strategies We provisionally monitored a battery of tests for geriatric screening (MNA, GDS, Get up and Go Test, CIRSG, ADL, IADL, MMSE), toxicity (IPSS; IIEF 5), and quality of life (QLQ C30) in 100 elderly patients before and two months after radiotherapy for malignant prostate disease (NCT 02876237). Patients aged 75 years who had undergone radiation therapy with a treatment plan for a limited malignant prostate, with or without treatment of androgenic difficulties (ADL), were qualified for inclusion in the study. Links between the understanding of the quality of life studied and the qualities of the tumor, radiotherapy treatment or CGA limitations were investigated using Fisher's or Mann and Whitney's tests. The changes in the quality of life limits over the long term were analyzed using the Wilcoxon test on the marked position.

**Conclusion:** Notwithstanding some of the time extraordinarily lessened oncogeriatric boundaries, prostate disease radiotherapy was commonly very much endured in these older patients. We found no prescient factor to figure out which patients would encounter hindered personal satisfaction following radiotherapy.

**Keywords:** Geriatric Evaluation, Localized Prostate Cancer Radiation Therapy.

**Corresponding author:**

**Dr. Areeba Saleem,**  
Akhtar Saeed Medical and Dental College

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**INTRODUCTION:**

Prostate malignancy generally occurs in older men (76 years of age) and is an important reason for decreased personal satisfaction and a major source of mortality due to the disease. Confined prostate disease in the elderly is usually treated with androgen deprivation therapy (ADT) as well as radiation therapy, while a medical procedure is suggested only occasionally [1]. While the extreme harm induced by radiation therapy is inconsistent in younger patients, which occurs in less than 6% of them, therapeutic radiation therapy is often accepted as being less well tolerated in the elderly. Older patients tend to have reduced urinary and gastric capacity, with the danger of being disrupted by radiotherapy [2]. Hence, only a minority of patients older than 75 years of age, with limited and high-risk malignant prostate growth, receive proximal treatment. Most of them receive palliative treatment (antidiarrheal therapy or no treatment at all), despite evidence indicating a fundamental improvement in endurance when radiotherapy is added to antidiarrheal therapy [3]. The personal satisfaction of patients undergoing balanced radiotherapy treatment for malignant prostate cancer decreases steadily after treatment, but most manifestations disappear within six months and long-term personal satisfaction is generally similar to pre-treatment satisfaction [8±10] [4]. Radiation therapy (and AS) is particularly associated with extensive asthenia, as well as a decrease in social, physical and intellectual work two months after treatment. The review reviews suggest that radiotherapy of malignant prostate tumors is very well tolerated by more established patients, while, irrespective of the enormous weight of limited malignant prostate tumors, impending surveys of post-radiotherapy self-satisfaction in this perhaps delicate population are inadequate. Determining elderly patients for risk-adjusted oncology drugs remains a test case for the oncogeriatric study. Geriatric screening instruments provide a pathway to assist the clinician who wishes to orient the delicate patient prior to any oncology intervention. The comprehensive geriatric assessment allows accurate recording of daily exercise, risk of falls, undernutrition, misery and comorbidities in order to predict whether medications for the disease will be tolerated [5].

**METHODOLOGY:**

We have enrolled patients with limited malignant prostate growth, at least 75 adult patients for whom a multidisciplinary tumor board had suggested close proximity prostate radiotherapy with a corrective plan, alone or in combination with DAT, in a planned multi-center partner study (NCT 02876237). Patients were enrolled by radiation oncologists during the main board, after the multidisciplinary tumour board and before the start of radiotherapy. Patients undergoing salvage radiotherapy at the prostate bed following a medical procedure were also included. All patients agreed to participate in the assortment and review of information from this examination. Our current research was conducted at Sir Ganga Ram Hospital, Lahore from March 2019 to February 2020. All patients underwent a complete geriatric evaluation by a geriatrician prior to the start of radiation therapy. Clinical, individual and social history, current medication, weight and home location for home separation were recorded. The Combined Geriatric Illness, Activities of Daily Living and Instrumental Activities of Daily Living Rating Scale, Mini Mental Status Examination, Geriatric Depression Small Scale, Mini Nutritional Assessment and Equipment and Behavioral Test (GUAGT) [29] were performed and results recorded. See Appendix 1 for the intricacies. Clinical objective volumes and endangered organ volumes were resolved by GETUG's proposals for prostate, prostate bed and pelvic lymph node molding [32]. Radiotherapy was delivered to a full 75.9±82 Gy in 34-40 parts to the prostate or 66 Gy in 35 parts to the prostate bed. In high-risk patients, pelvic lymph centers received 47±53.6 Gy in 26 to 37 divisions. Hypo fractional radiation therapy to the prostate (66 Gy in 20 portions) was allowed according to the preliminary rules of PROFIT. The portion requirements for the rectum and bladder followed Quantico's suggestions. Patients whose D'Amico characterization had predicted half the duration of treatment were qualified for 4±7 long periods of concurrent and adjunctive hormone therapy, which was extended to 2-3 long periods for high-risk patients [36]. ADT had to be monitored before or on the main day of radiotherapy.

Figure 1:

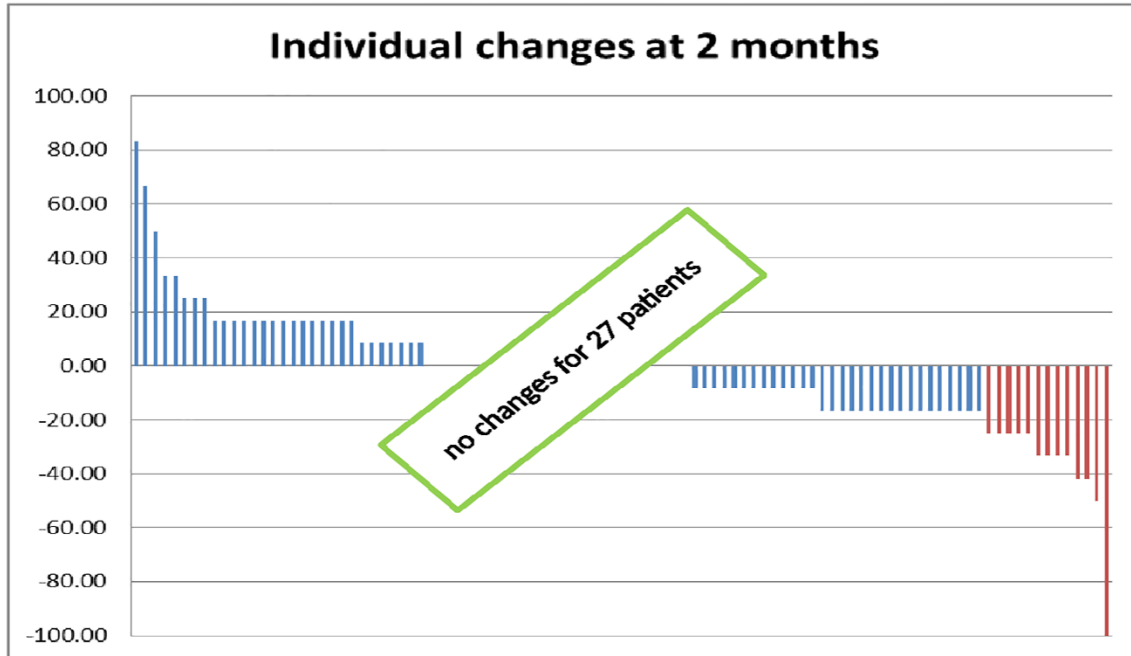
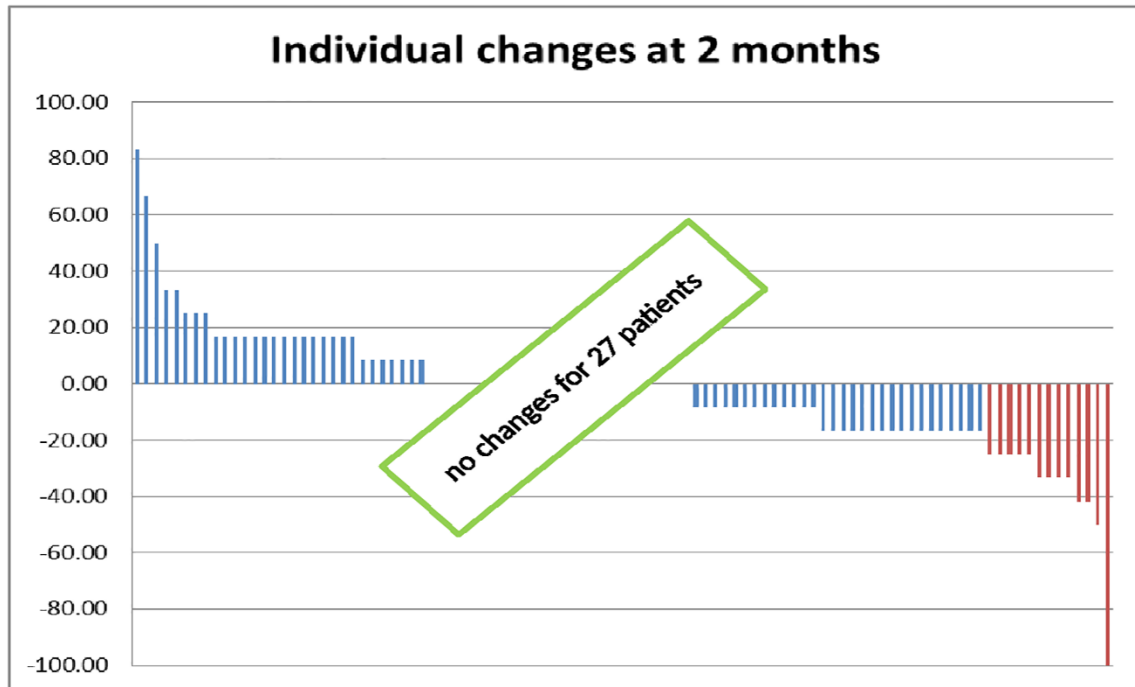


Table 1:

	Variation 10-20 (%)	Variation $\geq$ 20 (%)	Variation $\geq$ 10 (%)
Global Health	17	13	30
Physical functioning	5	9	14
Role functioning	12	20	32
Emotional functioning	7	4	11
Cognitive functioning	16	5	21
Social functioning	16	12	28
Fatigue	22	18	40
Nausea / Vomiting	1	3	4
Pain	12	11	23
Dyspnoea	0	17	17
Insomnia	0	17	17
Appetite loss	0	11	11
Constipation	0	14	14
Diarrhoea	0	21	21
Financial difficulties	0	4	4

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Figure 2:

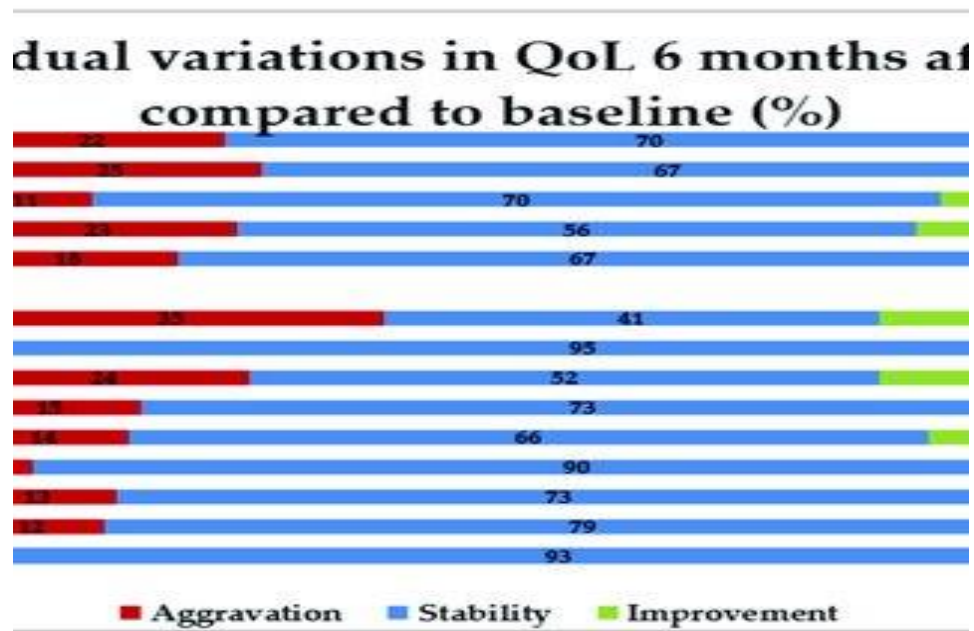
**RESULTS:**

100 patients with moderate (49%) or high (49%) risk of prostate malignancy were enrolled in 11 different disease habitats (Table 1). Their mean age was 77.5 years (mean 78.4; territory 75±89). The average distance from the patient's home to the radiotherapy center was 29 km (mean 32 km; range 4±147). AS was controlled in half of the patients. Severe (IPSS 21±36) or slightly impaired (IPSS 8±19) urinary capacity was observed in 11.2% (10/89) and 44.9% (42/87) of individual patients. Among the 78 patients who responded to the IIEF survey assessing sexual action and erectile capacity, sexual movement was available in 29 patients (36.4%), of which eight (10.3%) had a banal or mild break (IIEF 17±26), nine (12.6%) a moderate break (IIEF 11±15) and nine (11.5%) an extreme break (IIEF 6±12). ICSR-G demonstrated comorbidity in 66/100 patients, 51/100 of whom had moderate to severe cardiovascular comorbidities. A GDS score of 1 revealed heavy side effects in 31/100 of the patients. Exercises of daily living (ADL score > 6) and instrumental activities of daily living (IADL score > 7) were invalidated in 16/100 of patients, and 51/100 of patients separately. Psychological problems (MMSE < 27) were found in 20/100 of patients. Determined fall hazard (GUAGT < 0) was 8/100 and undernutrition (MNA 17) was found in 2/100 of the patients. Two months after termination of radiotherapy, urinary capacity was studied using the

IPSS survey in 87 patients. Severe (IPSS 22±36), respectable (IPSS 9±18), or just slightly impeded or ordinary (IPSS < 9) urinary capacity was noted in 14.6% (13/87), 45.7% (41/87) and 43.7% (38/87) of patients separately. Essentially, among the 71 patients who responded to another IIEF survey, sexual movement was maintained in 18 patients (24.8%). Of these, two (3.9%) suffered ordinary or only minor fractures (IIEF 17±26), four (6.7%) suffered moderate impedance (IIEF 12±16) and eleven (14.6%) suffered severe disability (IIEF 6±12) of erectile capacity. We dissected the patient's self-reported quality of life after radiation therapy in 100 patients (see Figure 1 and Table 2). According to the center's quality of life survey, the overall quality of life decreased slightly (loss of 10-20 foci) in 17 patients (18%) and especially in 13 patients (13%) (loss of 20 foci of unhappiness). On an individual level (Table 2), the most significant and persistent (variety > 20 foci) changes in quality of life were bowel relaxation (23 patients), engorgement, work, exhaustion (18), dyspnea (17) and sleep disturbance. At this stage, we dissected the correlations of mean scores of everything in the C30 QLQ survey between baseline and two months (Fig 2a and 2b). A critical barrier ( $p < .01$ ) in employment (mean bad luck - 9,  $p = 0.0001$ ) and social work (mean bad luck - 4.9,  $p = 0.0046$ ) was observed at two months in contrast to the baseline. On the indication scales, the

only weakness (mean rise +4.7,  $p = 0.0028$ ) was basically extended to two months.

**Figure 3:**



**Table 2:**

Table 2. Variation of quality of life and symptoms parameters N = 100.

	Variation 10-20 (%)	Variation $\geq 20$ (%)	Variation $\geq 10$ (%)
Global Health	17	13	30
Physical functioning	5	9	14
Role functioning	12	20	32
Emotional functioning	7	4	11
Cognitive functioning	16	5	21
Social functioning	16	12	28
Fatigue	22	18	40
Nausea / Vomiting	1	3	4
Pain	12	11	23
Dyspnoea	0	17	17
Insomnia	0	17	17
Appetite loss	0	11	11
Constipation	0	14	14
Diarrhoea	0	21	21
Financial difficulties	0	4	4

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**Table 3:****Table 3. Predictive factors for moderate changes in quality of life.**

	No QoL decrease > 10 points(n = 70)	QoL decrease > 10 points(n = 30)	p
Age	78 [75–89]	77 [75–88]	0.933
Distance	28 [4–147]	19 [5–85]	0.687
BMI	27.4 [20.5–42.9]	25.9 [19.8–34.9]	0.187
Number of medications	3 [0–6]	2 [0–6]	0.873
QLQ-C30 T0	75.0 [0–100]	83.3 [50.0–100]	0.012
Clinical stage			0.721
Low	3	0	
Intermediate	33	15	
High	34	15	
Radiotherapy			0.153
prostate	56	20	
prostatic bed	14	10	
ADT			0.614
No	33	16	
Yes	36	14	
Depression			0.422
No	50	19	
Yes	20	11	
Risk of fall			0.699
No	55	24	
Yes	5	3	
Denutrition			0.3
No	70	29	
Yes	0	1	
Comorbidities			1
No	24	10	
Yes	46	19	
Urinary symptoms			0.576
Light	25	14	
Moderate	29	11	
High	8	2	
ADL impairments			0.138
No	56	28	
Yes	14	2	
IADL impairments			1
No	34	15	
Yes	36	15	
Cognitive impairment			0.749
No	59	27	
Yes	10	3	
Urinary symptoms at 2 months			0.177
Mild	25	12	
Moderate	31	9	
Severe	6	6	

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### DISCUSSION:

The choice of whether or not to suggest proximity therapy for malignant prostate growth in the elderly, and the impending information on the tolerability of radiotherapy in this population was deficient [6]. Our thorough and deliberate assessment of a huge delegated partner states that a large proportion of these patients are undoubtedly at risk of weakness and deterioration in quality-of-life following radiotherapy [7]. In any case, our most significant finding is that despite various co-morbidities and often weakened geriatric limitations, more than 70% of the more

established patients undergoing radiation therapy maintain their overall quality of life after the end of radiation therapy [8-9]. No geriatric, patient-related or treatment-related limitations were predictable in the event of a diminished quality of life following revolutionary radiotherapy [10].

### CONCLUSION:

Confined malignant growth of the prostate in more established men is a typical clinical circumstance and the extent to which extremist radiotherapy is used is questionable. Most patients are currently treated with



dynamic control or ADT, so to speak. Our survey is the first to comprehensively assess geriatric limitations prior to the start of radiotherapy and to longitudinally assess limitations in quality of life after treatment. Our information recommends that overall quality of life is generally preserved shortly after radiotherapy, with or without AS, even in this frequently debilitated patient population. This implies that while there is a reasonable possibility that nearby radiotherapy will improve the patient's future, fear of an iatrogenic decrease in quality of life should not preclude the choice of treatment. A broad CGA prior to the start of radiotherapy may highlight comorbidities that may decrease after radiotherapy has joined AS. We did not find any specific prospective components for which more experienced patients were most at risk of decreased quality of life after radiation therapy. Further evaluation of long-term quality of life is needed.

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