

Does Fear of Recurrence Predict Choice of Primary Treatment for Prostate Cancer? Data From the CaPSURE Observational Study

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CaPSURE Overview

- Cancer of the Prostate Strategic Urologic Research Endeavor
- National, longitudinal observational database started in 1995
- Purpose
 - Examine practice patterns
 - Describe treatment outcomes
 - Document patient well-being
 - Examine cost of care

CaPSURE Sample

- Over 12,000 subjects ever enrolled (1995 – 12/30/05)
- About 7,000 currently active subjects
- 31 Urology Sites currently enrolling patients
 - 40 Urology Sites ever enrolled

CaPSURE Recruitment

- Consecutive patients enrolled, irrespective of clinical features or treatment type
- Patients followed over time in usual practice setting
- Multiple practitioners from community and academic sites
- Data reported from patients and physicians

CaPSURE Data Collection

- Data collection at baseline between biopsy and treatment (biopsy and first six months)
- Assessments at six month intervals
- Clinician report, chart abstraction, and patient self-report
- Paper and Internet methods
- UCSF Urology coordinating site

CaPSURE Variables

- Clinical
 - PSA
 - Pathology
 - Treatments
 - Comorbid conditions
 - Medications
 - Office visits/hospitalizations
 - Symptom management
 - Cause of death
- Economic
 - Cost
 - Payment
 - Resource use
- Patient well-being
 - Quality of life (SF-36)
 - Prostate Specific Function and Bother (UCLA Prostate Cancer Index)
 - Satisfaction with care
 - Other constructs
 - Fear of Recurrence
 - Dietary behavior
 - Alternative and complimentary medicine use
 - Work status, work loss
 - Personal care, household help

Introduction

- A patient's anxiety about cancer and fear of its recurrence are important considerations in prostate cancer treatment decisions.
- For this reason, cancer anxiety is a key attribute included in most prostate cancer decision analyses.
- However, little is known about how anxiety or fear of recurrence influence the process of selecting a primary treatment for localized prostate cancer.

Mental Health and Prostate Cancer Outcomes

- Litwin et al., Cancer, 2002.
- N=452
- Post treatment
- Results
 - Mental health better among those who had RP compared to WW and XRT
 - Less worry among older men
 - More worry in patients with worse disease

Fear of Recurrence in Patients Undergoing Definitive Treatment for Prostate Cancer

- Mehta et al., Journal of Urology, 2003
- N=519
- Pre and post treatment
- Results
 - Fear of cancer recurrence more severe before treatment and improved after treatment but did not change substantially by 2 year follow-up
 - General health and mental health important predictors of fear of recurrence

Anxiety, PSA, and Active Surveillance

- Latini et al.
- N=116
- Anxiety and PSA Velocity: Rate of change in PSA and anxiety over time using Carter method
- Cox proportional hazards to determine the influence of anxiety on time to active treatment controlling for PSA velocity
- Results
 - Anxiety velocity independent predictor of initiation of active treatment at or after 6 months post biopsy

Fear of Recurrence and Primary Treatment

- In this study, we sought to examine fear of recurrence, sociodemographic and clinical characteristics, and treatment choice among men diagnosed with localized prostate cancer.

Methods

- Data were drawn from CaPSUREtm, a national observational prostate cancer registry.
- Participants were 2,605 men diagnosed by biopsy with localized prostate cancer between 1999 and 2003.
- Clinical data was collected after biopsy and before treatment, including Prostate Specific Antigen Level, Gleason Grade, stage of disease at diagnosis, and number of comorbid conditions.
- Following the initiation of treatment, information on primary treatment was obtained. Those who had not received treatment within 6 months after biopsy were considered to be under surveillance.

Methods

- Fear of recurrence was measured by 3 items from Kornblith's scale
- The 3 items were selected because of their appropriateness for use in patients ranging in management strategy for prostate cancer, including surveillance.
- Internal reliability of the scale was acceptable (coefficient alpha=0.82).
- Participants completed the scale at baseline which was between date of diagnosis and start of treatment for those receiving primary therapy and between date of diagnosis and 6 months post diagnosis for those under surveillance.

Fear of Recurrence Items

- Items
 - Because cancer is unpredictable, I feel I cannot plan for the future.
 - My fear of having my cancer getting worse gets in the way of my enjoying life.
 - I am afraid of my cancer getting worse.
- Response scale: a five point scale indicating agreement (strongly agree to strongly disagree) was used in rating each of the statements.
- Fear of recurrence scores ranged from 0 to 100 with higher scores indicating greater anxiety.

Analysis

- Participants included in the analysis were those who had been diagnosed with localized disease and who had selected radical prostatectomy, brachytherapy, external beam radiation or androgen deprivation therapy as primary treatment or were on surveillance.
- Fear of recurrence was calculated and transformed to a 0 to 100 scale. Approximate quartiles (0-10, 11-25, 26-50, 51-100) were used in the analyses.
- Risk of recurrence was calculated based on PSA, Gleason Grade, and stage of disease (TNM classification).
- Frequencies of demographic and pre-treatment clinical data, and treatment choice were examined by fear of recurrence quartile.

Results

- A majority of the men were older than age 55, white, and highly educated (Table 1).
- Most had been diagnosed with low or intermediate risk prostate cancer (81%) and had received primary treatment (92%) as opposed to watchful waiting. A third (32%) had 3 or more comorbid illnesses (Table 2).
- Men who were single and nonwhite and those of lower education and income had greater fear of recurrence (Table 3).
- Also, those with higher risk for prostate cancer recurrence as determined by PSA, tumor characteristics, and stage, and those with more comorbid illness reported greater fear of recurrence (Table 4).
- Fear of recurrence was significantly associated with treatment choice with those receiving external beam radiation therapy, androgen deprivation therapy, and watchful waiting having higher anxiety than those receiving radical prostatectomy or brachytherapy (Table 4, Figure 1).

Table 1. Sociodemographic Variables

	N	(%)
Age at diagnosis		
<55	293	11
55-64	824	32
64-74	1055	40
75+	433	17
Ethnicity		
African American	151	6
White	2364	91
Other	89	3
Education		
<HS	374	15
HS graduate	668	26
Some college and above	1519	59
Income		
<\$30,000	692	30
\$30,000 -\$50,000	561	24
\$51,000-\$75,000	448	19
>\$75,000	611	26
Relationship status		
In relationship	2313	91
Single	237	9

Table 2. Clinical Variables

	N	(%)
Treatment		
Radical Prostatectomy	1370	53
Brachytherapy	597	23
External Beam Radiation	284	11
Primary Androgen Deprivation Therapy	134	5
Watchful Waiting	220	8
Risk category		
Low	1161	47
Intermediate	835	34
High	457	19
Comorbidities		
None	365	14
1-2	1366	54
3 and greater	818	32

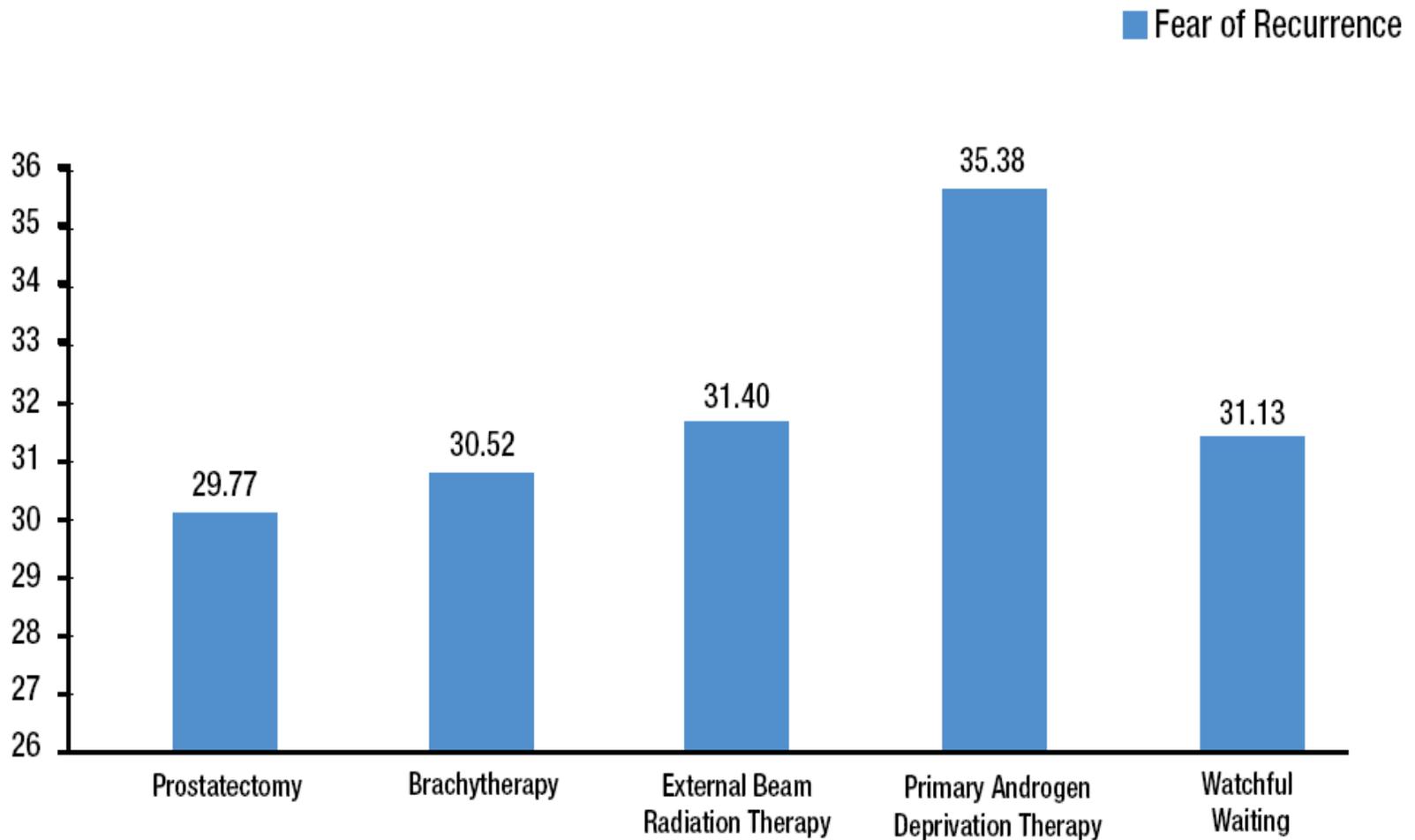
Table 3. Fear of Recurrence and Sociodemographic Characteristics

	Score				p
	0-10%	11-25%	26-50%	51-100%	
Age at diagnosis					
<75	84	85	81	85	0.11
≥75	16	15	19	15	
Ethnicity					
White	91	93	90	86	<0.01
Other	9	7	10	14	
Education					
≤HS	37	35	44	50	<0.01
>HS	63	65	56	50	
Income					
<\$50,000	50	51	58	60	<0.01
≥\$50,000	50	49	42	40	
Relationship					
In relationship	94	92	88	89	<0.01
Single	6	8	12	11	

Table 4. Fear of Recurrence and Clinical Characteristics

	Score				p
	0-10%	11-25%	26-50%	51-100%	
Treatment					
Radical Prostatectomy	56	55	48	53	<0.01
Brachytherapy	22	21	25	21	
EBRT	10	12	9	13	
PADT	4	4	6	7	
Watchful Waiting	7	7	11	6	
Recurrence risk					
Low	51	50	47	38	<0.01
Intermediate	35	33	34	35	
High	14	17	20	27	
Comorbidities					
None	18	12	14	14	<0.01
1-2	58	57	49	50	
3 and greater	24	30	37	36	

Figure 1. Fear of Recurrence by Treatment Type



Discussion

- While previous studies have found relatively low psychological distress among men diagnosed with localized prostate cancer, our data suggest that men at risk for greater anxiety about cancer include those of lower socioeconomic status and ethnic minorities.
- Those at greater risk of prostate cancer recurrence reported greater fear of recurrence, perhaps suggesting that awareness of risk factors contributes to anxiety.
- In our study, men with greater anxiety received less definitive management (e.g., external beam radiation therapy) as compared to treatments that involve removal of the tumor (e.g., radical prostatectomy).
- It is not clear whether those with higher anxiety select less definitive therapy or those who select more definitive treatments reduce their anxiety by making this treatment choice.

Implications

- In the clinical setting, men of lower socioeconomic and minority status are at risk for experiencing cancer anxiety and fear of recurrence. Such men may need more linguistically and culturally appropriate information about prostate cancer and its treatment to reduce their initial fear of cancer recurrence and help them feel better about their treatment decisions.
- Attending to fear of cancer recurrence when helping a man select primary treatment for prostate cancer may be important in alleviating psychological distress and ensuring that treatment choice matches the man's psychosocial needs.
- Further study is needed to determine the influence that cancer anxiety and fear of recurrence plays over time in treatment choices, patterns of care, and outcomes.