

Late effects

Late rectal symptoms and quality of life after conformal radiation therapy for prostate cancer

Hans Geinitz^{a,*}, Frank B. Zimmermann^a, Reinhard Thamm^a, Caroline Erber^a,
Tobias Müller^a, Monika Keller^b, Raymonde Busch^c, Michael Molls^a

^aDepartment of Radiation Oncology, Technical University Munich, Germany, ^bDepartment of Psychophysiology, University Hospital Heidelberg, Germany, ^cInstitute for Medical Statistics and Epidemiology, Technical University Munich, Germany

Abstract

Background and purpose: This study was carried out in order to analyze the prevalence of late rectal and anal symptoms after conformal radiation therapy for prostate cancer and to assess their association with quality of life.

Patients and methods: Two-hundred and forty nine patients were interviewed at 24–111 months after definitive conformal radiation therapy of localized prostate cancer with a median dose of 70 Gy. Rectal symptoms and fecal incontinence were evaluated with standardized questionnaires. Quality of life was assessed with the EORTC Quality of Life Questionnaire-C30 and the prostate cancer module PR25.

Results: Rectal symptoms were mostly intermittent. Daily symptoms occurred in $\leq 5\%$ of the patients. Incontinence was mostly mild with only 3% of the patients reporting daily incontinence episodes. Quality of life was comparable to that of the male German general population except that cognitive functioning and diarrhea were worse in the study population and pain was worse in the reference population. Global quality of life was associated with fecal incontinence, fecal urge, tenesmus, therapy for rectal symptoms and hormonal therapy for biochemical/clinical recurrence.

Conclusions: Rectal symptoms and fecal incontinence after conformal radiation therapy for prostate cancer are mostly intermittent. Fecal incontinence, fecal urge and tenesmus are associated with lower global quality of life levels.

© 2006 Elsevier Ireland Ltd. All rights reserved. Radiotherapy and Oncology 79 (2006) 341–347.

Keywords: Prostate cancer; Conformal radiation therapy; Rectal toxicity; Fecal continence; Quality of life

Radiation therapy and radical prostatectomy are the two curative treatment options for patients with localized prostate cancer. Today no large randomized trial exists that clearly demonstrates a superior outcome for either option. Therefore, the potential side effects and their impact on the patient's quality of life play an important role for the individual treatment choice. Both patients as well as physicians need detailed information on the prevalence of long term adverse effects in order to decide on either therapy. In general, radical prostatectomy is associated with a higher rate of urinary side effects while radiation therapy is correlated with a higher percentage of rectal symptoms [1–6]. Late rectal side effects include rectal bleeding, mucous discharge, defecation pain, fecal urge and diarrhoea [7–22]. Recently, also impaired fecal continence has been recognized as a side effect of prostate radiotherapy [12,15,23–25].

Many of the late rectal symptoms after radiation therapy of prostate cancer are intermittent with a tendency to improve over time [1,18,20–22,26]. Their

impact on the patient's general quality of life, however, remains unclear.

In this study, we document the prevalence of late rectal symptoms and fecal incontinence in patients who had received definitive conformal radiation therapy for localized prostate cancer. Additionally, general and prostate cancer specific quality of life was assessed. We were particularly interested in the association of rectal symptoms with general quality of life.

Materials and methods

Patients

Between January 1994 and June 2000, 321 patients received definitive 3D conformal radiation therapy for localized prostate cancer at our institution. After a letter of introduction, surviving patients were contacted by phone and were interviewed for information on late toxicity, both from late rectal, urinary and sexual symptoms and the current

Table 1
Patient eligibility

| | Number | Percent of surviving patients |
|---|--------|-------------------------------|
| Definitive 3D treatment 1/94-6/00 | 321 | - |
| Deceased before contact | 44 | - |
| Surviving | 277 | - |
| Lost to follow-up | 15 | 5% |
| Declined participation | 6 | 2% |
| Insufficient command of the German language | 3 | 1% |
| Alzheimer's disease | 2 | 1% |
| Advanced Parkinson's disease | 1 | <1% |
| Anus praeter due to rectal carcinoma | 1 | <1% |
| Evaluated: side effects and bother | 249 | 90% |
| Evaluated: quality of life | 241 | 87% |

state of disease. In addition, they were asked to self assess their quality of life (QoL) with two standardized questionnaires (see below). Questionnaires were mailed to the patients together with a post-paid return envelope. Patient eligibility and response is listed in Table 1. The socio-demographic and clinical characteristics of the 249 patients who took part in the study are listed in Table 2.

Treatment

The treatment concept was described earlier [8,27]. In short, conformal treatment was carried out throughout the whole course of radiation therapy. None of the patients received treatment of the pelvic lymphatics. All patients were treated with 6-15 MeV photons from a linear accelerator via four individually shaped treatment fields (either a four-field-box or four lateral oblique non-coplanar fields or a sequential combination of both techniques). The beam weights were individually chosen. The dose was prescribed according to the ICRU 50 guidelines. Dose per fraction was 1.8 or 2 Gy. Low risk patients received treatment to the prostate only, while intermediate and high risk patients received radiation therapy to the prostate and (base of) the seminal vesicles. Intermediate and high risk patients were also offered short term neoadjuvant hormonal therapy. The safety margins for the planning target volume were 1.2 cm in the dorsal direction and 1.5 cm in all other directions for patients treated before 2000. Beginning in 2000, patients were treated within a phase II multicentre trial [11] with a rectal balloon catheter for internal immobilisation. Safety margins in these cases were 1.0 cm in all directions.

One hundred and ninety seven of the 249 patients in this study (79%) received neoadjuvant hormonal therapy. The median duration of hormonal treatment was 5 months (range: 1-22 months). Only two patients received neoadjuvant hormonal therapy for longer than 1 year.

Rectal symptoms

The rate of rectal symptoms was assessed using an ad hoc constructed 8 item questionnaire ('rectal symptom score',

Table 2
Sociodemographics and clinical characteristics

| | |
|--|---------------------|
| <i>n</i> | 249 |
| Median age at time of questionnaire completion (range) | 76 (58-97) years |
| Median time since radiotherapy (range) | 54 (24-111) months |
| <i>Educational level</i> | |
| Low | 58 (24%) |
| Intermediate | 101 (40%) |
| High | 81 (32%) |
| Unknown | 9 (4%) |
| <i>Marital status</i> | |
| Single | 31 (12%) |
| Married/partner | 215 (87%) |
| Unknown | 3 (1%) |
| <i>Risk group^a</i> | |
| Low | 81 (33%) |
| Intermediate | 65 (26%) |
| High | 103 (41%) |
| Median prostate dose (range) | 70.0 (59.0-72.0) Gy |
| Neoadjuvant hormonal therapy | 197 (79%) |
| <i>Disease status after radiation therapy</i> | |
| Biochemical relapse (ASTRO criteria) | 76 (31%) |
| Local recurrence | 3 (1%) |
| Lymphnode recurrence | 3 (1%) |
| Distant metastasis | 3 (1%) |
| Hormonal therapy for biochemical recurrence | 42 (17%) |
| <i>Concomitant disease</i> | |
| Cardiovascular disease | 143 (58%) |
| Gastrointestinal disease | 40 (16%) |
| Second tumour | 34 (14%) |
| Diabetes mellitus | 34 (14%) |
| Pulmonary disease | 26 (11%) |
| Depression | 25 (10%) |

^a Low, T1/T2 and WHO grading 1 or 2 and initial PSA ≤ 10 ng/ml; intermediate: T1/T2 and G3 and/or PSA > 10 ng/ml and ≤ 20 ng/ml; high, T3/T4 or PSA > 20 ng/ml.

Supplementary Material). The score ranged from 0 (no symptoms, no stool medication) to 32 (daily occurrence of all seven symptoms and daily stool medication).

Fecal continence

The fecal continence score of Jorje and Wexner [28] (see Supplementary Material) was used to evaluate fecal continence.

Bother scales

Bother from rectal and urinary symptoms as well as from impaired sexual activity was evaluated with an ad hoc constructed five point scale (see Supplementary Material).

Quality of life

QoL was assessed with the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire C30 (EORTC QLQ-C30, version 3.0) [29]. The questionnaire consists of five functional scales, three

Download English Version:

<https://daneshyari.com/en/article/2161299>

Download Persian Version:

<https://daneshyari.com/article/2161299>

[Daneshyari.com](https://daneshyari.com)