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PUBLICATION

Don't be afraid of brachytherapy in solitary bladder cancer: a case control, multi centre, East Netherlands study

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Introduction: A radical cystectomy is the treatment of choice for patients with muscle-invasive bladder carcinoma. However, in a selected patients' population a bladder sparing treatment: a combination of transurethral tumor resection (TUR), external beam irradiation and interstitial brachytherapy can be applied successfully. This concerns a solitary T1G3/T2 N0,M0 bladder tumour with a diameter ≤ 5 cm. Unfortunately a prospective randomised study, comparing outcome of surgery and radiotherapy has not been conducted yet. Whether a patient is introduced to a radiation oncologist depends on the conviction of an urologist in brachytherapy.

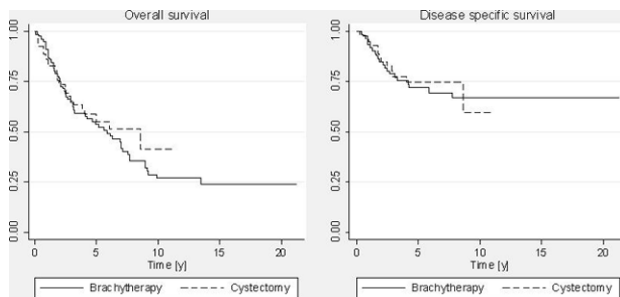
Aware of a lack of published data on this subject we decided to conduct a study comparing results of both treatments in an East Netherlands patient population.

Materials and Methods:

Cystectomy group: Patients were collected using the pathological registration system. 289 cases of TUR followed by cystectomy, indicated by a muscle-invasive bladder tumour have been performed in three East Netherlands medical centres between 1990 and 2001. Out of this group 180 patients with clinical T1G3/T2 N0,M0 bladder tumour have been selected. All the consecutive files were analysed by an urologist and a radiation oncologist and 66 of those patients, mean age 63.7 have been found eligible for brachytherapy, based on an initial analysis: cystoscopy estimated tumor size, post-TUR pathological report, completed by CT-and/or MRI-scan. The final post-cystectomy pathological report has obviously not been taken into account.

Brachytherapy group: 77 patients, mean age 68.3 underwent TUR followed by a course of external beam irradiation and interstitial brachytherapy from 1983 till 2002 in the Arnhem Radiotherapy Institute.

Results: Actuarial curves for overall survival (OS) and disease specific survival (DSS) are shown.



Log rank tests indicated no difference in OS and DSS between the two groups. Because the brachytherapy population is older, a Cox proportional hazards analysis was performed, which indicated no significant effect of the treatment modality, while the hazard ratio for the age at the start of treatment proved to be significant.

Conclusion: Although we present a retrospective study, we consider the data convincing for the effectiveness of brachytherapy in the treatment of solitary bladder cancer. There is certainly room for a randomised study including quality of life and cost analysis.

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Inflammatory prostate cancer: an underestimated paraneoplastic clinical manifestation

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Background: A complex inflammatory cytokine network and signaling cascade characterized by chemokine release (IL-8, IL-6, PGE₂) and chemokine receptor expression, play a key role in prostate carcinogenesis. In vitro studies suggest IL-6 to undergo a functional transition from paracrine growth inhibitor to autocrine growth stimulator during prostate

cancer progression to hormone refractory phase. Considering that 28–43% hormone-refractory patients present with high IL-6 serum levels and that IL-6 is a pyrogenic pro-inflammatory cytokine, it is perplexing how little is known about fever as a sign of prostate cancer.

Purpose: To identify the incidence of prostate cancer associated-systemic inflammatory syndrome (SIS) and characterize this clinical entity.

Study Design: Systematic review.

Data sources: Medline, ISI, Cochrane Central Register, and hand searching of selected journals (Total hits: 1722; no Publication only year and language restriction). Cancer registry of Ioannina University Hospital (IUH) was further perused for the last 3 years.

Results: We found 4 eligible patients in IUH cancer registry, and 4 literature reports (2 English, 1 Polish and 1 Spanish) dealing about other 4 eligible patients. Cumulative analysis suggests that SIS affects patients in the 6th–8th decade of life. Pyrexia (4/8 sign at disease presentation; 4/8 sign at disease progression) ranged from 38.3–39.4°C, and was associated with back pain (7/8), fatigue (5/8), night sweats (4/8), chills (3/8), weight loss (3/8), thrombocytopenia (3/8), elevated CRP (5/5) and hypoalbuminemia (3/4). Seven patients were anemic and showed both bone marrow infiltration and bone metastases. Undifferentiated histology was predominant. Hormonal treatments were adopted among patients with fever at diagnosis. Among hormone-refractory patients chemotherapy was adopted and time to symptom progression was 3–10 months. Symptom relapse, disease progression and death usually occurred in patients with adequate follow-up. Both NSAIDs and corticosteroids efficaciously guaranteed early symptomatic relief.

Conclusion: Considering the role of the inflammatory cytokine network for prostate carcinogenesis and progression, the incidence of SIS seems to be strongly underestimated. Since patients suffering from prostate SIS are heavily symptomatic, rapidly worsening, and response to therapy results in symptoms control, we suggest prompt treatment after an on-time diagnostic work-up to rule out infectious causes.

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Survival advantage and modest cost associated with bicalutamide combination therapy compared with castration alone in patients with advanced prostate cancer

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Background: Combination therapy using a non-steroidal antiandrogen (flutamide/nilotamide) plus castration has been shown to significantly decrease the risk of death over castration alone in patients with metastatic prostate cancer (Lancet 2000;355:1491–8). These studies, however, were conducted with the first-generation antiandrogens before bicalutamide ('Casodex') became available. To directly calculate the estimated benefit of bicalutamide plus castration versus castration alone, we have integrated data from two trials that share a common treatment arm, using an approach that is well established and accepted (BJU Int 2004;93:1177–82). The cost of bicalutamide combination therapy is also investigated.

Methods: Historical data from the double-blind, randomised Schellhammer trial (Urology 1997;50:330–6), which evaluated bicalutamide plus castration versus flutamide plus castration, were combined with findings from the Prostate Cancer Trialists' Collaborative Group meta-analysis for flutamide plus castration versus castration alone (Lancet 2000;355:1491–8). Both analyses shared flutamide plus castration as a common treatment arm. The main assumptions were that with respect to the effect of flutamide plus castration, the patients' prognostic factors and management were similar across the two data sets.

Results: The estimated reduction in risk of death with bicalutamide 50 mg combination therapy versus castration alone was 20% (range 2–34%; 95% confidence intervals 0.66, 0.98). This survival advantage is numerically greater than with flutamide plus castration (8% reduction in the risk of death) and exceeds other commonly used cancer therapies. The cost per month of survival gained is favourable relative to other standard treatments used for other common malignancies.

Conclusions: Compared with castration alone, bicalutamide combination therapy appears to have a clinically significant survival advantage, which is gained with a relatively modest cost per month of survival benefit. It should be considered for the treatment of patients with advanced prostate cancer. 'Casodex' is a trademark of the AstraZeneca group of companies