



# BRACHYTHERAPY

## Editors' pick

### Irradiation of localised prostate cancer in the elderly: A systematic review.

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#### *What was your motivation for initiating this study?*

During our weekly urologic medical staff meeting, physicians are more and more confronted with difficult clinical situations involving elderly patients with high-risk prostate cancer. International guidelines propose recommendations helping physicians and patients in the decision-making process to choose the optimal treatment. The aggressiveness of prostate cancer, competing comorbidity factors and the benefit/risk balance of irradiation have to be discussed (1-4).

We performed a PubMed literature search including articles published during the last 10 years to answer the two following questions (5):

- Are elderly patients undertreated?
- What is the benefit/risk balance of radiation therapy in the elderly in regard to oncological outcomes (external radiotherapy, brachytherapy and androgen deprivation therapy), tolerance (toxicity and QoL), and influence of comorbidities?

#### *What were the main challenges during the work?*

The three main challenges were:

- The lack of homogeneity between the different articles regarding the definition of 'elderly patient' with a cut-off that ranged between 70 and 80 years.
- The lack of homogeneity of primary endpoints used for analysis (disease-free survival, cause-specific survival, overall survival), making the comparisons between elderly and younger patients difficult to perform.
- The lack of robust data on elderly high-risk prostate cancer management due to a lack of representativeness or specific analysis (in subgroups) in prospective or randomised clinical trials, leading to insufficient proof level.

#### *What are the most important findings of your study?*

- Age was often an obstacle to radical treatment, with a subsequent risk of under-treatment, particularly in patients with a poorer prognosis.
- Comparable oncological outcomes were noticed between elderly and younger patients after external beam radiotherapy alone or combined with brachytherapy boost.
- Late toxicity rates were low and most often comparable to younger populations. However, a urinary over-toxicity was observed in the super-elderly (> 80 years) after brachytherapy boost.
- The use of ADT should be considered in light of comorbidities, and may even be deleterious in some patients.
- Elderly comorbidities can influence oncological outcomes (overall and cause-specific survival) and treatment tolerance (EBRT and/or ADT), with a decrease in specific mortality and an increase in overall mortality

The PRSOTAGE cohort analysis, which compared elderly (> 70 years) and younger patients with high-risk prostate cancer treated with a combination of external beam radiation therapy, brachytherapy boost and androgen deprivation therapy, confirmed these findings (6).

## What are the implications of this research?

- Except for unfit patients, elderly men remain candidates for optimal curative treatment (i.e. regardless of age) after onco-geriatric assessment.
- Onco-geriatric assessment remains crucial to build the treatment process precisely. A strong collaboration between the onco-geriatric team and prostate cancer care providers is warranted in order to propose shared decision-making with the patient and their family/relatives.
- More solid data from prospective trials conducted, especially in this population, are needed to provide better guidance in our daily clinical practice.



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