

INPLASY PROTOCOL

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None declared.

Surgery, Radiotherapy and Endocrine therapy for Oligometastatic Prostate Cancer Efficacy: A Systematic Review and Network Meta-analysis

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Review question / Objective: Surgery, Radiotherapy and Endocrine therapy for Oligometastatic Prostate Cancer Efficacy.

Condition being studied: Oligometastatic states are thought to be intermediate stages of cancer spread between localized and widespread metastasis. With the improvement of diagnostic methods such as Functional imaging, the diagnosis rate of oligometastatic prostate cancer is higher than ever before.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 27 October 2022 and was last updated on 27 October 2022 (registration number INPLASY2022100110).

INTRODUCTION

Review question / Objective: Surgery, Radiotherapy and Endocrine therapy for Oligometastatic Prostate Cancer Efficacy.

Condition being studied: Oligometastatic states are thought to be intermediate stages of cancer spread between localized and widespread metastasis. With the

improvement of diagnostic methods such as Functional imaging, the diagnosis rate of oligometastatic prostate cancer is higher than ever before.

METHODS

Search strategy: (((General Surgery or Surgery, General or Surgery or Radical prostatectomy) OR (Radiotherapy or

Radiotherapies or Radiation Therapy or Radiation Therapies or Therapies, Radiation or Therapy, Radiation or Radiation Treatment or Radiation Treatments or Treatment, Radiation or Radiotherapy, Targeted or Radiotherapies, Targeted or Targeted Radiotherapies or Targeted Radiotherapy or Targeted Radiation Therapy or Radiation Therapies, Targeted or Targeted Radiation Therapies or Therapies, Targeted Radiation or Therapy, Targeted Radiation or Radiation Therapy, Targeted)) OR (androgen receptor axis-targeted therapy or ARAT or hormone therapy or leuprorelin or goserelin or flutamide or Enzalutamide or LHRHa)) AND ((Prostatic Neoplasms or Prostate Neoplasms or Neoplasms, Prostate or Neoplasm, Prostate or Prostate Neoplasm or Neoplasms, Prostatic or Neoplasm, Prostatic or Prostatic Neoplasm or Prostate Cancer or Cancer, Prostate or Cancers, Prostate or Prostate Cancers or Cancer of the Prostate or Prostatic Cancer or Cancer, Prostatic or Cancers, Prostatic or Prostatic Cancers or Cancer of Prostate) AND (Oligometastatic or Oligometastases)).

Participant or population: Randomized controlled trials that enrolled patients of any age and that included patients with confirmed oligometastatic prostate cancer. Studies that patients not treated will be excluded.

Intervention: Treatment includes androgen deprivation therapy (ADT) , radical Prostatectomy (RP) , and radiation therapy (RT).

Comparator: conventional treatment.

Study designs to be included: Randomized controlled trials (RCTs) will be included.

Eligibility criteria: Randomized controlled trials that enrolled patients of any age and that included patients with confirmed oligometastatic prostate cancer. Studies that patients not treated will be excluded.

Information sources: Medline, EMBASE, and Cochrane databases.

Main outcome(s): overall survival (OS), progression-free survival (PFS), quality of Life(QoL), treatment-related adverse event(TRAЕ).

Additional outcome(s): None.

Quality assessment / Risk of bias analysis: Risk of bias was performed according to the Cochrane framework: 1. Random sequence generation selection bias; 2.Allocation concealment selection bias; 3. Blinding of participants and personnel performance bias; 4. Blinding of outcome assessment detection bias; 5. Incomplete outcome data attrition bias; 6. Selective reporting reporting bias; 7. Other bias. Results of bias assessment will be presented in a figure and a graph indicating low, high or unclear risk of bias for each of the 7 items in each trial. Sensitivity analysis will be conducted based on the bias assessment to assess robustness of results.

Strategy of data synthesis: Hazard ratio (HR) and its 95% confidence intervals (95% CI) will be calculated for the outcomes. Due to expected heterogeneity among the trials, Meta-analysis using the bayesian meta-analysis model will be conducted to pool HR.

Subgroup analysis: None.

Sensitivity analysis: To test the robustness of the results, we did a sensitivity analysis by leaving out studies that we assessed to be of lower or ambiguous methodological quality.

Country(ies) involved: China.

Keywords: Oligometastatic prostate cancer; surgery; radiotherapy; drug endocrine therapy.

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