PARIS 2022 ESMO congress

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Duration of androgen suppression with post-operative radiotherapy (DADSPORT): A collaborative meta-analysis of aggregate data

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Background

The DADSPORT Meta-analysis Collaboration conducted a systematic review and meta-analysis of results from NRG/RTOG 9601, GETUG-AFU 16, NRG/RTOG 0534 and newly-available, RADICALS-HD trials to assess the effect of hormone therapy (HT) in men receiving radiotherapy (RT) following radical prostatectomy for localised prostate cancer.

Methods

We assessed the effects of adding HT to post-operative RT on overall survival (OS) and metastases-free survival (MFS), using published results and working with trialists to obtain additional data, including pre-publication results of RADICALS-HD. Primary analysis was a fixed-effect, inverse-variance meta-analysis, stratified by hormone duration (no HT, 6m and 24m of HT) following RT. A pre-specified sensitivity analysis excluded men from NRG/RTOG 9601 who had PSA >1.5ng/ml at randomisation.

Results

Based on all 4 eligible trials (701 deaths, 4452 men; 100% of all randomised), and median follow up ≥8 yrs, there was no clear improvement in OS with HT compared to no HT (HR 0.89, 95% CI 0.77-1.03). The effects on OS for 6m and 24m duration of HT versus no HT were similar, as were results of a sensitivity analysis to exclude men with PSA >1.5ng/mL (Table 1). Data on MFS from 2 trials of 24m HT vs no HT are not yet available. Based on data from 3 trials (653 events, 3364 men; 100%), there was evidence that 6m HT improved MFS compared to no HT (HR 0.82, 95% CI 0.70-0.96, p=0.013).Table: LBA64

Results for overall survival

Treatment comparison	No. of trials included	No. of events/men	Hazard ratio (HR) (95% CI), p-value	Heterogeneity I^2, p-value
HT (any duration) vs no HT	4	701/4452	0.89 (0.77-1.03), p=0.13	I^2=0, p=0.42
HT (any duration) vs no HT:Sensitivity analysis	4	650/4334	0.93 (0.80-1.08), p=0.35	I^2=0, p=0.67
6m HT vs no HT	3	419/3364	0.90 (0.74-1.09), p=0.28	I^2=0, p=0.98
24m HT vs no HT	2	282/1088	0.89 (0.72-1.10), p=0.29	I^2=74%, p=0.05
24m HT vs no HT:Sensitivity analysis	2	231/970	0.98 (0.78-1.23), p=0.87	I^2=49%, p=0.16

Conclusions

We provide the most reliable evidence to date regarding the effects of HT with post-operative radiotherapy. Thus far, there is no clear evidence that the addition of HT improves OS, but 6m HT improves MFS. We aim to present updated results of the effects of HT on OS, MFS and prostate cancer-specific survival, including network meta-analysis incorporating all direct and indirect evidence, as well as effects by

pre-defined patient subgroups.

Legal entity responsible for the study

The authors.

Funding

UK Medical Research Council.

Disclosure

C.C. Parker: Financial Interests, Institutional, Other, Lecture: Bayer; Financial Interests, Personal, Invited Speaker: Janssen; Non-Financial Interests, Personal, Advisory Board: Myovant, ITM Radiopharma; Financial Interests, Institutional, Advisory Board: AAA. M.R. Sydes: Financial Interests, Institutional, Funding: Astellas, Clovis Oncology, Janssen, Pfizer, Novartis, Sanofi-Aventis; Financial Interests, Personal, Training: Lilly Oncology, Janssen. A.U. Kishan: Financial Interests, Personal and Institutional, Funding: Prostate Cancer National Institutes of Health Specialized Programs of Research Excellence ; Financial Interests, Personal and Institutional, Research Grant: Department of Defense, Radiological Society of North America, the STOP Cancer organization, the Jonsson Comprehensive Cancer Center, and the Prostate Cancer Foundation. C. Catton: Non-Financial Interests, Personal, Advisory Board: Bayer, AbbVie Corp; Financial Interests, Personal and Institutional, Funding: Tersera Corp. All other authors have declared no conflicts of interest.