

GENITOURINARY TUMOURS, PROSTATE

LBA5.PR Radiotherapy (RT) to the primary tumour for men with newly-diagnosed metastatic prostate cancer (PCa): Survival results from STAMPEDE

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Background: Local treatment of the prostate might not only improve local control but also slow progression of metastatic disease. We hypothesised that RT to the prostate would improve overall survival in men presenting with metastatic PCa & that survival benefit would be greater in men with lower metastatic burden.

Methods: STAMPEDE, a multi-arm multi-stage platform protocol, included a randomised phase III comparison to test this hypothesis. Standard-of-care (SOC) was life-long androgen deprivation therapy (ADT), with early docetaxel permitted from 2016. Stratified randomisation within 12 wk on ADT allocated pts 1:1 to SOC or SOC+RT. Men allocated to RT had daily (55Gy/20f/4wk) or weekly (36Gy/6f/6wk) schedules, started \leq 8wk after randomisation or docetaxel. The primary outcome measure (OM) was death from any cause; secondary OMs included failure-free survival (FFS). 90% power & 2.5% 1 sided α for hazard ratio (HR) 0.75 required ~267 control arm deaths. Analyses used Cox proportional hazards & flexible parametric models. Directionally pre-specified subgroup analysis tested effects by metastatic burden at entry.

Results: 2061 men with newly-diagnosed M1 PCa were randomised Jan 2013 - Sep 2016. Randomised groups were well balanced: median age 68 yr; median PSA 97ng/ml; 18% early docetaxel; metastatic burden: 40% lower, 54% higher, 6% unknown. Prostate RT improved FFS (HR = 0.76, 95%CI 0.68, 0.84) but not overall survival (HR = 0.92, 95%CI 0.80, 1.06). Subgroup analysis showed improved overall survival for prostate RT in 819 men with lower metastatic burden (HR = 0.68, 95%CI 0.52, 0.90) but not in 1120 men with higher metastatic burden (HR = 1.07, 95%CI 0.90, 1.28). RT was well-tolerated during (5% Grd3-4 SOC+ RT) & after treatment (Grd3-4 <1% SOC, 4% SOC+RT).

Conclusions: Radiotherapy to the prostate did not improve survival for unselected patients with newly-diagnosed metastatic prostate cancer, but, in a pre-planned analysis, did improve survival in men with a lower metastatic burden. Therefore, prostate radiotherapy should be a standard treatment option for men with oligometastatic disease.

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