

 PROSTATE CANCER

The TRAPEZE swings for treatment results



P. Morgan/NPG

The results of the phase III, open label, randomized TRAPEZE trial investigating the effect of combining zoledronic acid and/or strontium-89 (^{89}Sr) with docetaxel on clinical outcomes and survival in men with metastatic castration-resistant prostate cancer (mCRPC) have been published in *JAMA Oncology*.

This study enrolled 757 men between 2005 and 2012 and participants were randomized to one of four arms: arm A received up to 10 cycles of docetaxel, arm B received docetaxel plus zoledronic acid during chemotherapy and until disease progression, arm C received docetaxel then ^{89}Sr then docetaxel again, and finally, arm D received docetaxel plus doses of both zoledronic acid and ^{89}Sr . The primary

outcome was clinical progression-free survival (CPFS) defined as number of days from the date of randomization to the first occurrence of a symptomatic skeletal-related event (SRE), pain progression or death. Secondary outcomes were symptomatic-SRE-free interval, pain-progression-free interval, overall survival, and number of SREs.

The addition of zoledronic acid to docetaxel had no effect on CPFS, whereas ^{89}Sr had a modest effect when analysed using adjusted Cox regression. No significant increases in pain-progression-free survival or overall survival were observed for zoledronic acid, ^{89}Sr , or the combination. ^{89}Sr did not significantly prolong median symptomatic-SRE-free interval, with only a modest increase from

11.7 to 13.0 months observed; however, zoledronic acid did have a significant effect, increasing the median interval from 11.2 to 13.6 months. Analysis of the effect of the different treatments on total SREs showed that those men who received zoledronic acid experienced 30% fewer events than those who did not, whereas ^{89}Sr had no effect.

The results of this trial show that ^{89}Sr has modest benefit on CPFS, but this treatment has probably been superseded by the recently licensed radium-223. However, zoledronic acid significantly reduces symptomatic SREs and could be beneficial in combination with a life-prolonging mCRPC therapy.

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ORIGINAL ARTICLE James, N. D. *et al.* Clinical outcomes and survival following treatment of metastatic castrate-refractory prostate cancer with docetaxel alone or with strontium-89, zoledronic acid, or both: The TRAPEZE randomized clinical trial. *JAMA Oncol.* <http://dx.doi.org/10.1001/jamaoncol.2015.5570> (2016)