

P032 Impact of MR-guided stereotactic radiotherapy on quality of life of prostate cancer patients

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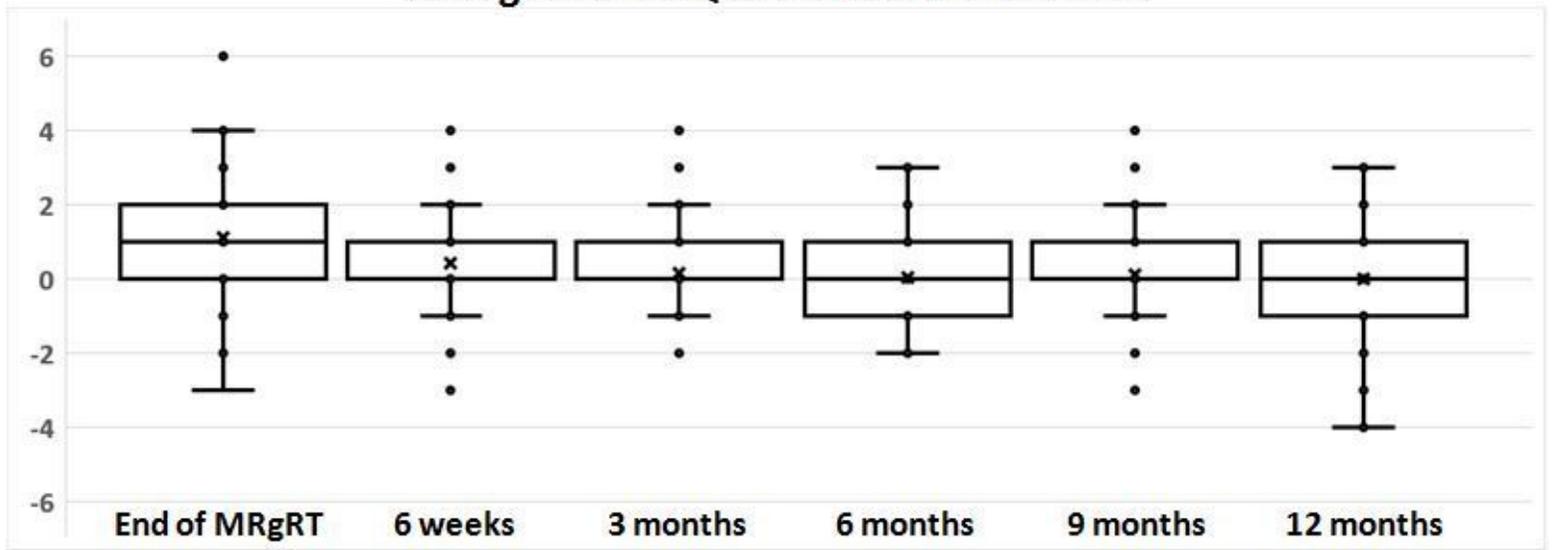
Introduction & Objectives: Stereotactic MR-guided radiation therapy (MRgRT) is a novel treatment approach for patients with localized prostate cancer. In addition to the advantages of improved soft-tissue contrast and on-table daily plan re-optimization, marker-less continuous MR-imaging during delivery allows treatment with only minimal (3 mm) safety margins thereby optimally sparing the adjacent rectum and bladder. A prospective phase II study [NCT03961321] investigated the toxicity of this approach during the first year of follow-up. Patient-reported data are the most reliable outcome measures for toxicity and the impact on quality of life, and these are reported here.

Materials & Methods: 101 patients with low- (4.0%), intermediate- (36.6%) and high-risk (59.4%) prostate cancer were enrolled until April 2018. The majority of patients (82.1%) received adjuvant hormonal treatment. MRgRT was delivered in 5 fractions of 7.25 Gy in two weeks. Quality of life data (EORTC QLQ-C30, QLQ-PR25, IPSS-S and L-score) were collected at baseline, end of MRgRT, at 6 weeks, and at 3, 6, 9 and 12 months follow-up.

Results: The completeness of QoL data was >95% for all items at any time point. None of the functional QoL scales showed a clinically meaningful difference (i.e. 10 points or more) comparing baseline and 12 months. The global health scale (QLQ-C30) was not significantly different at baseline and 12 months (83.3% and 80.6%, respectively, 95% CI of the difference -.07 - 5.6). The QoL due to urinary symptoms, derived from the IPSS-L score, showed an initial significant worsening from baseline values in the first six weeks, followed by a normalization at longer follow-up (boxplot in Figure 1). A 'significant' impact on daily activities (scored as 'quite a bit' or 'very much') because of urinary problems was not reported by a single patient at baseline, nor at 12 months. Corresponding rates of impact on daily activities because of bowel problems were 0% at baseline and 2% at 12 months.

Figure 1.

Change in IPSS QoL-score from baseline



Conclusions: Stereotactic MRgRT for localized prostate cancer had little impact on QoL, as measured by patient-reported outcome data, within the first year of follow-up. Long term outcome remains to be awaited.