

Evaluating Outcome and Prognostic Factors in Low-Volume Stage IV Hormone-Sensitive Prostate Cancer (mHSPC)

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Objective:

The 8th edition of the AJCC-TNM classification categorizes prostate cancer as stage IV when metastases are present in pelvic lymph nodes (N1) or abdominal lymph nodes (M1a), as well as in the presence of bone metastases (M1b). However, there is a paucity of data on the effectiveness of intensifying treatment with docetaxel and/or androgen receptor targeted agents (ARTA) in addition to androgen deprivation therapy (ADT) for patients with mHSPC who are classified as stage IV due to N1 status. Additionally, the differential benefits of such treatments in M1 low-volume disease, specifically in cases with nodal-only (M1a) or bone (M1b) involvement, are not well understood.

Methods:

we conducted a retrospective cross-sectional study looking at 126 patients diagnosed with stage IV mHSPC low volume according to the CHAARTED criteria. Patient characteristics and treatment outcomes were analysed, and prognostic factors were evaluated using Cox regression analysis.

Results:

Seven patients (6%) had N1, 28 (22%) M1a, and 91 (72%) M1b. The only significant difference in clinical variables among these three patients' categories was found in treatment with ADT only ($p < 0.001$). The 5-year progression-free survival (PFS) rate was 63.1% for all patients, 100% for N1, 80.9% for M1a and 54.9% for M1b metastases. High PSA value (> 25) and consolidation prostate radiotherapy (cRT) were identified as independent prognostic factors for PFS. Although there was a significant difference in the median follow-up time between patients who received cRT and those who did not receive it (26.8 months vs. 37.7 months, $p = 0.03$), cRT was associated with significantly higher 5-year PFS (94.7%, 95% CI, 85.2-100, vs. 55.2%, 95% CI, 40.8-74.8, $p = 0.01$).

Conclusions:

Despite its limitations, this study suggests a potential role for cRT in patients with low-volume metastatic mHSPC. Additionally, our data indicate that high PSA levels may serve as a valuable prognostic factor for decision-making in this patient population. Further investigation is needed to confirm these findings.

Abstract Code: IUC20745-83