

Poster 10: Treatment Shift from Primary Surgery to Radiotherapy for Stage T1b Cervical Cancer in the United States

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Topic
Cervical

Objectives
To assess temporal trends of primary treatment approach for stage T1b cervical cancer in the United States.

Methods
This retrospective cohort study queried the National Cancer Institute's Surveillance, Epidemiology, and End Results Program. Study population was 11,706 patients with AJCC T1b/N0-1/M0 cervical cancer who received primary anti-cancer treatment either with hysterectomy or definitive radiotherapy without hysterectomy from 2004-2021. Linear segmented regression with log-transformation was used to assess primary treatment per one-year increments. Exploratory analysis included survival association for primary therapy.

Results
The most frequent tumor size was ≤ 2 cm (n=4,763, 40.7%), followed by 2.1-4cm (n=4,203, 35.9%) and > 4 cm (n=2,740, 23.4%). Among node-metastasis cases, use of primary radiotherapy increased across all tumor size groups from 2004-2021 (≤ 2 cm, 13.1% to 41.1%; 2.1-4cm, 15.2% to 52.2%; > 4 cm, 36.7% to 85.2%; all $P < .05$). Among node-negative cases, rate of primary radiotherapy rose from 2010-2021 in the tumor size > 4 cm group (44.6% to 68.8%, $P = .002$). Hysterectomy was used in the majority of cases and rates remained stable in the same time period among the other tumor size groups: ≤ 2 cm (93.5% to 89.4%) and 2.1-4cm (83.4% to 81.5%) groups (both $P > .05$). Primary hysterectomy was associated with improved survival in all subgroups except for node-metastatic size > 4 cm where the two modalities had comparable survival.

Conclusions
The results of current population-based assessments suggest that primary treatment for stage T1b cervical cancer is gradually shifting from hysterectomy to radiotherapy in the United States when nodes are involved including for smaller tumor sizes of ≤ 2 cm or 2.1-4cm. These findings suggest a possible prognostic role and survival benefit of primary hysterectomy for tumors ≤ 4 cm even with node involvement, meriting further investigation.

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