Percutaneous interstitial brachytherapy ablation for targeting oligometastatic gynecologic cancers

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Topic: Other (Interstitial brachytherapy)

Objectives
Treatment of recurrent oligometastatic gynecologic malignancy may involve targeted surgery, thermal ablation or CT guided high dose rate interstitial brachytherapy ablation (CT-HDR-IBTA). The purpose of this study was to describe the safety and efficacy of CT-HDR-IBTA for oligometastatic ovarian and endometrial cancer.

Methods
From our single institution database, all patients with oligometastatic gynecologic cancers who underwent CT-HDR-IBTA from 2012-2020 with follow up were identified and electronic record was reviewed to determine demographics, prior treatments, clinical course, local control and local and distant recurrence with follow up imaging.

Results
The study cohort comprised 26 lesions (average 1.1 per patient) in 20 patients treated with CT-HDR-IBTA for oligometastatic uterine (n=13) or ovarian cancer (n= 7) with an average lesion size of 2.0 cm, average radiation dose of 20 Gy in 1.4 fractions and median follow up time of 6.9 months. The average patient age was 59.3 years with an average of 2.8 prior lines of chemotherapy. 75% of patients had received some form of prior radiation. The primary efficacy of CT HDR ITBA was 72% with a median time to progression of 8.2 months (95% CI 5.4-30+ months) and median overall survival of 28.9 months (CI 27.9-36.6+ months). The rate of Grade 1 adverse events was 30% without Grade 2, 3 or 4 events.

Conclusions
CT HDR IBTA is a safe and effective treatment of oligometastatic endometrial and ovarian cancers in heavily pretreated patients.

Abstract Table or Graph
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