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Recurrence Risk Stratification for Women with FIGO Stage I Uterine Endometrioid Carcinoma Who Underwent Surgical Lymph Node Evaluation

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Abstract 2604 − Table 1

	CTV D95(Gy) Mean (range)	CTV V100(%) Mean (range)
Plan	4527 (4505-4563)	98.0 (96.1-99.7)
Verification 1	4510 (4456-4536)	95.3 (86.7-99.4)
Verification 2	4518 (4478-4552)	96.5 (88.6-99.3)
Verification 3	4509 (4470-4554)	95.4 (86-99.4)
Verification 4	4515 (4455-4542)	96.1 (83.9-98.8)

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2605

Recurrence Risk Stratification for Women with FIGO Stage I Uterine Endometrioid Carcinoma Who Underwent Surgical Lymph Node Evaluation

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Purpose/Objective(s): To estimate the recurrence risk based on the number of prognostic factors in women with FIGO stage I uterine endometrioid carcinoma (EC) in a large cohort of patients who underwent surgical staging including surgical lymph node evaluation (SLNE) and were managed with no adjuvant therapy.
Materials/Methods: We queried our in-house prospectively maintained uterine cancer database for patients with FIGO stage I EC underwent surgical staging including SLNE between 1/1990-12/2020. Patients with synchronous ovarian and breast cancer diagnosis were excluded as well as those who received adjuvant therapy of any form. Patient's demographics and pathologic variables were analyzed. We used multivariate analysis (MVA) with Stepwise Model Selection to determine risk factors for 5-year recurrence-free survival (RFS). Study population was then stratified based on the number of risk factors identified (0, 1 or 2). The resultant groups were compared for RFS, disease-specific survival (DSS) and overall survival (OS) using log-rank test and Kaplan-Meier curves. Additionally, independent predictors of DSS and overall OS were estimated.
Results: 706 patients were identified who met our inclusion criteria with a median age of 60 years (range, 30-93) and a median follow-up of 120 months. All patients had at least pelvic SLNE with a median number of examined lymph node (LN) of 8 (range, 1-66): 66 patients (11%) had a sentinel LN sampling and 43% had paraaortic SLNE. 639 patients (91%) were stage IA and lymphovascular space invasion (LVSI) was detected in 6% (n=41). Recurrence was diagnosed in 44 patients (6%). Independent predictors of 5-year RFS include age ≥ 60 years (p=0.038), grade 2 vs. 1 (p=0.003), and grade 3 vs 1 (p<0.001). 5-year RFS for group-0 (age < 60 years and grade 1) was 98% vs. 92% for group-1 (either: age ≥ 60 years or grade 2/3) vs 84% for group-2 (both: age ≥ 60 years and grade 2/3), respectively (p<0.001). 5- year DSS for the three groups was (100% vs 98% vs 95%, p=0.012) and 5-year OS was (98% vs 90% vs 81%, p<0.001), respectively. On MVA, stage IB vs IA was deterministic for DSS (p=0.02); whereas age ≥ 60 years (p<0.001) and grade 3 vs grade 1 (p=0.004) were predictors for worse OS.
Conclusion: In patients with stage I endometrioid carcinoma who had surgical staging including SLNE and no adjuvant therapy, only age ≥ 60 years and high tumor grade were independent predictors of cancer recurrence and hence can be used to quantify individualized recurrence risk. Surprisingly, LVSI was not an independent prognostic factor in this study cohort with SLNE.

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2606

Bone Marrow Toxicity and Tolerance of Sandwich Therapy for Advanced-Stage Endometrial Cancer: A Single-Institution Experience

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Purpose/Objective(s): Adjuvant therapy for advanced-stage endometrial cancer (EC) involve chemotherapy (CT) and/or radiation therapy (RT). Institutional practices vary regarding the sequencing of these therapies. While recent trials favored concurrent chemoradiation followed by consolidating CT, there is no randomized comparison of efficacy between 'sandwich' (ST) versus concurrent CT. Previous studies show BM dose is predictive of hematological toxicities (HT) in concurrent chemoradiation. In this study, we sought to determine whether bone marrow dose contributes to hematological toxicity in ST for treatment of advanced-stage EC.
Materials/Methods: Data for patients who received ST (CT with carboplatin/paclitaxel then 45 Gy external beam radiation therapy [EBRT] with/without paraaortic [PA] fields then additional CT) at a single academic institution for EC cases was abstracted. Full ST was defined as 3 CT cycles, then RT, followed by a final 3 CT cycles. Grade 3 (G3) higher hematologic toxicities (ANC <1000, Hgb <8.0, platelet count <50,000) were recorded for each patient based at the time of infusion or radiation therapy. T-test and Chi-square test were used as appropriate to determine association.
Results: 98 EC patients that underwent ST were included; 66.0% were stage IIIC. 84% of patients completed full ST, and 26.3% of cases experienced ≥1 treatment delay. Among cycle delays cases, 57.7% had ≥1 G3 hematologic toxicity: 10 neutropenia, 4 anemia, and 3 thrombocytopenia. HT rate was 49.0%: 34% neutropenia, 13% anemia, 12% thrombocytopenia. Frequency of cycle delay (31.3% vs. 21.6%) or ST non-completion (13.7% vs. 18.4%) were not significantly associated with HT presence (p>0.05, all). Significantly fewer patients who had HT both pre- and post-EBRT completed post-sandwich CT compared to toxicities occurring at other time intervals (Table). While patients with ≥2 HT during their treatment received a significant larger mean bone marrow radiation dose (69.0 vs 72.5%, p=0.037), overall dosimetric data were similar regardless of HT timing during treatment. PA boost did display more frequent HT following RT (21.1% vs. 51.7%, p = 0.033) but completed ST at similar rates (63.2% vs 36.8%, p=0.441). There was a 10% mortality rate; overall survival was similar despite presence of HT occurrence, or with HT requiring a cycle delay or cycle non-completion (p>0.05, all cases).
Conclusion: In our study, BM dose does matter in determining HT even in ST, but does not affect overall treatment completion. The treatment completion rate is comparable to those reported historically for CT only arm. Low rates of cycle interruption and similar overall survival point to a promising safety and efficacy profile with ST.

Abstract 2606 − Table 1: Table: Comparison of hematologic toxicities (HT) pre- and post-radiation therapy (RT) based on chemotherapy cycle characteristics.

		Cycle Delay (%)	Cycle Completion (%)
HT Timing	Pre-RT	26.3%	94.7%
	Post-RT	36.4%	90.9%
	Pre+Post-RT	27.8%	66.7%
P-value		0.832	***0.024**