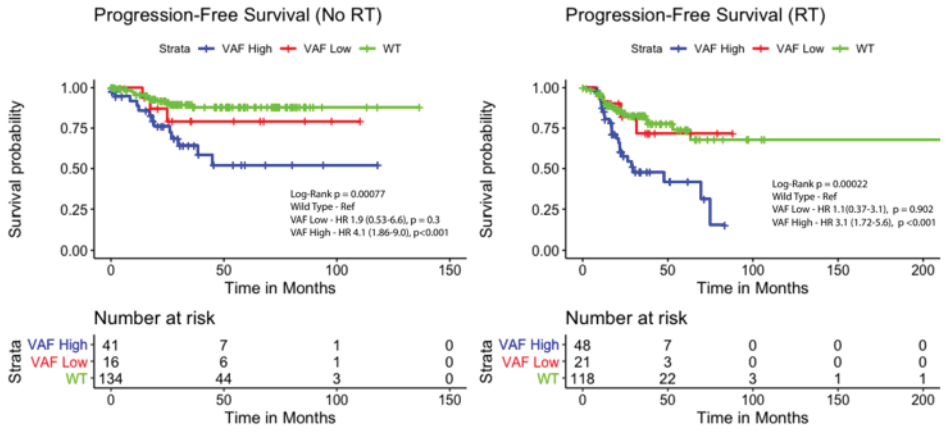
Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.



escalation with systemic chemotherapy. Herein we demonstrate that outcomes may vary dependent on variant allelic frequency (VAF) of TP53 missense mutations, not just the presence of a mutation alone.

Methods: De-identified clinical data from the TCGA endometrial cancer cohort was obtained via cbioportal.org. Only patients with information regarding stage, histology, somatic copy-number burden, TP53 sequencing with variant allelic frequency, and exposure to RT were included. Patients with multiple TP53 alterations and stage IV disease were excluded from the analysis. T-test was performed to test for differences in sCNA burden, age, and stage between groups. Kaplan-Meieir analyses were performed to determine progression free survival (PFS) on each cohort, stratified into a VAF high or low using a 0.5 cutoff. Cox regression analysis was used to calculate hazard ratios.

Results: In total, 389 had genomic and treatment data available for analysis. Of these, 133 (34%) had a TP53 missense mutation. The average age was 64 years, with no significant difference between the RT and not RT groups (p=0.3). The mean sCNA for the RT and no RT, groups were 0.19 and 0.18, respectively (p=0.65). When analyzing the impact of TP53 status on PFS, mTP53 patients who did not receive RT had worse outcomes compared to wild-type TP53 (HR 3.5 [1.8-6.9], p<0.001). Of those who received RT, those with mTP53 malignancies also had a worse PFS (HR 2.6 [1.5-4.5], p<0.001). When stratified by VAF, mTP53 patients with low VAF tumors who received RT had outcomes similar to those with wild-type TP53 (HR 1.9 [0.5-6.6], p=0.3). The addition of RT did not significantly alter outcomes in mTP53 patients with low VAF tumors (HR 1.1 [0.37-3.1], p=0.9). Patients with high VAF tumors had significantly worse outcomes compared to wild-type TP53 (HR 4.1 [1.8-9], p<0.001). These outcomes remained significantly different with the addition of RT (HR 3.1 [1.7-5.6], p<0.001).

Conclusions: This data highlights that TP53 VAF is a valuable prognostic marker and may be predictive of poor outcomes after radiotherapy alone. Residual wild-type p53 signaling in tumors with a low VAF may help explain outcomes similar to wild-type tumors. This genomic signal could help stratify patients with mTP53 tumors to multimodal therapy or de-escalation of therapy to radiotherapy alone. Further work remains to be done to determine a functional and biologic explanation for these findings.

593 - Poster Session

Treating through the surge: institutional experience of definitive management of cervical cancer patients at an urban institution during the COVID-19 pandemic

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Objectives: An international consensus panel has defined locally advanced cervical cancers as a high priority malignancy during the COVID-19 pandemic and recommends prompt initiation of definitive treatment and completion of treatment (PMID 32563593). The objective of this study was to study the clinical outcomes of patients (pts) with cervical cancer treated with definitive chemoradiation (CRT) and brachytherapy (BT) at our institution in 2019 (pre-COVID) and in 2020 (peri-COVID).

Methods: This was a retrospective cohort study of pts with FIGO Stage IB2-IVA cervical cancer at our institutions from 1/2019 to 10/2020. Pts received CRT followed by intracavitary brachytherapy (IC) with two operative insertions one week apart, or interstitial (IS) BT with one operative insertion. BT treatment was planned using image-guided CT or MR delineation. Pre-COVID was defined by initiation of CRT between 1/2019-12/2019, and peri-COVID was defined by initiation between 1/2020-10/2020. Process changes peri-COVID included limited on-site staff (e.g., minimal OR staff, no trainees, remote physics team), universal implementation of COVID-19 testing prior to surgery, and CT instead of MR-delineation based treatment. Outcomes of interest were time to treatment initiation and completion and differences in treatment planning modality or dosimetry. Fisher's exact and Mann Whitney U tests were used with significance p<0.05.

Results: Thirty pts were included, with 18 patients undergoing treatment pre-COVID and 12 peri-COVID. The median age at diagnosis pre-COVID was 57.7 (range 23-77) and for peri-COVID, 45.5 (range 28-62, p=0.06). There were no differences in non-English speaking pts (44% vs 59%, p=0.71) or uninsured pts (11% vs 33%, p=0.184) between the two cohorts. Median time to initiation of treatment from biopsy diagnosis was 52 days (range 13-209) in 2019 and for peri-COVID, 55.5 (range 20-173, p=0.71). During COVID, three pts had delayed initiation to treatment >100 days: two related to fertility and one due to fear of COVID-19. For this pt, tumor size progressed from 2.3cm to 4.2 cm maximal dimension. One pt treated in 2020 tested positive following treatment and did not require hospital admission. All pts completed CRT with RT: 24 pts pelvic RT (45 Gy), 3 pelvic and para-aortic RT (45 Gy with 57.5 Gy concomitant boost to nodes), 8 pts pelvic RT (45Gy) with sequential parametrial boost (50.4-59.4 Gy) using IMRT with no dose differences between pre and peri-COVID

Table 1. Patients by brachytherapy treatment and radiation doses in median (range)

	Pre-COVID	Peri-COVID	All	P-value
Intercavitary	n=12	n=12	n=24	
D90	95.5 (87.9- 108.1)	92.7 (85.6- 98.5)	94.1 (85.6-108.1)	0.41
Bladder 2cc	85.15 (75.0-95.7)	78.95 (74.0-85.2)	80.1 (74.0-95.7)	0.68
Rectum 2cc	71.2 (59.6-82.1)	69.2 (53.4-87.2)	71.2 (53.4-87.2)	1.00
ICRU bladder	95.05 (68-110.3)	79.05 (57.9-105.6)	81.65 (57.9-110.3)	0.22
ICRU rectum	76.05 (66.9-95.6)	70.75 (57.4-84.5)	74.2 (57-4.95.6)	0.68
Interstitial	n=3	n=3	n=6	
D90	75.9 (73.9-90.7)	74.2 (70.5-86.5)	76.5 (70.1-90.7)	1.00
Bladder 2cc	77.0 (70.1-78.3)	70.5 (86.5-77.9)	76.8 (70.5-86.5)	1.00
Rectum 2cc	74.4 (62.9-78.4)	74.4 (62.9-78.4)	73.0 (62.9-79.1)	1.00

(Table 1). No pts required treatment breaks and the median overall treatment time was 50 days (range 31-85) in 2019 vs 50 days (range 43-63) in 2020 (p=0.710).

Conclusions: Despite the significant burden of the COVID-19 pandemic on our health care system, all cervical cancer pts receiving CRT met standard of care including CRT and BT within the recommended time frame with no significant differences in treatment parameters pre- and peri-COVID.

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594 - Poster Session

Treatment outcomes and predictive factors in patients 70 years and older with advanced ovarian cancer

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Objectives: Primary debulking surgery (PDS) and neoadjuvant chemotherapy (NACT) have shown similar survival in patients with advanced ovarian cancer (AOC). However, patients >70 or =70 years old are under-represented in these trials and the extent of surgical effort that can be safely tolerated in this age group is yet to be determined. Our objective was to compare surgical outcome, complication profile and survival in patients >70 or =70 years old with AOC undergoing PDS versus NACT.

Methods: This is a retrospective cohort study of women > 70 or = 70 years old with Stage III-IV AOC treated at a single tertiary Cancer Center between 2010-2018. Baseline demographics, surgical data and outcomes were collected. Descriptive statistical analysis was performed on demographic parameters, surgical and follow-up outcomes. Kaplan Meier survival analysis and Cox Proportional Hazards were performed for OS and PFS.

Results: There were 275 patients with AOC >70 or =70 years old in our cohort; 25 were excluded due to incomplete documentation, 70 were treated with PDS and 154 received NACT among which 98 had interval debulking surgery (IDS) and 56 had chemotherapy alone; 26 patients had no treatment. Median follow-up was 21.27 months. Optimal cytoreduction (<1 cm or =1cm) was achieved in 71.4 % of patients undergoing PDS and 77.5% in NACT/IDS (p=0.44). Radical procedures (low anterior resection and re-anastomosis, large bowel resection, small bowel resection, para-aortic lymph node dissection, splenectomy, diaphragmatic stripping, liver resection) were performed in 41.4% of the PDS group and 35.7% in the NACT/IDS group (p=0.37). There was no significant difference in Grade III-IV postoperative complications (17.1% vs 9.1%, p=0.24). Time to adjuvant chemotherapy was longer in the PDS group (37 vs 29 days, p=0.02). There were two peri-operative deaths in the NACT/IDS group.Median PFS for all treated patients (PDS, NACT with and without IDS) was 12.83 months (95% CI 9.9-16.4). There was a trend toward improved PFS in patients undergoing PDS (20.2 vs 9.1 and 11.9 months in NACT with and without IDS, respectively, p=0.06). Patients with no gross residual disease had improved PFS of 30.3 vs 16.0 and 15.4 months (for optimal≤1 cm and suboptimal, respectively, p=0.003). On multivariable analysis including PDS and IDS, intraoperative surgical complexity score was the only significant predictor of achieving optimal cytoreduction (OR=4.95, 95% CI 1.4-17.0, p=0.01). There was no significant difference in PFS stratified by age categories.In a multivariable analysis, predictors affecting decision to undergo PDS were stage (OR 0.22, 95% CI 0.1-0.7, p=0.02) and ascites (OR 0.1, 95% CI 0.04-0.34, p<0.01). There was a trend for CA125 (OR 0.99, 95% CI 0.9-1.0, p=0.07). Age (OR 0.92, 95% CI 0.85-0.96, p=0.01) and ECOG (OR 0.58, 95% CI 0.41-0.83, p<0.01) were only significant in a univariable analysis.

TABLE 1. DEMOGRAPHIC AND SURGICAL OUTCOMES IN PATIENTS WITH AOC AGE >=70

	PDS (n=70)	NACT+ IDS (n=98)	NACT without IDS (n=56)	No treatment (n=26)	P-value*
Median Age (range)	74 (70-90)	75 (70-86)	78 (70-93)	81(70-91)	**0.00**
Median CCI (range)	0 (0-4)	0 (0-8)	0 (0-3)	0 (0-3)	0.26
Median ECOG (range)	0 (0-4)	1 (0-4)	2 (0-4)	2 (0-3)	**0.01**
Stage-n(%) III IV	 64 (91.4) 6 (8.6)	 76 (77.5) 22 (22.5)	 35 (62.5) 21(37.5)	 21 (80.8) 5 (19.2)	0.003
Median Initial albumin (range)	37.5 (18-67)	37 (20-48)	36 (26-45)	34 (20-45)	0.43
Patients requiring radical procedures-n (%)	29 (41.4)	35 (35.7)	na	na	0.37
Cytoreductive outcome – n(%): NGR Optimal<1cm Suboptimal "Open and close"	 30 (42.8) 20 (28.5) 18 (25.7) 2 (2.9)	 36 (36.7) 40 (40.8) 20 (20.4) 2 (2.0)	na	na	0.44
Postoperative complications Grade I-II-n(%) (Grade III-IV)-n(%)	 10 (14.2) 12 (17.1)	 15 (15.3) 9 (9.1)	na	na	0.52
Median LOS- days (range)	5.5 (1-49)	5 (0-10)	na	na	**0.05**
Median Time to first adjuvant chemotherapy-days (range)	37 (7-84)	29.5 (16-73)	na	na	**0.02**
PFS (months)	20.2	9.1	11.9	na	**0.06**

PDS: Primary debulking surgery. NACT: neoadjuvant chemotherapy IDS: interval debulking surgery NGR: no gross residual. ECOG: Eastern Cooperative Oncology Group LOS: length of stay. PFS: Progression free survival.

Conclusions: In selected patients >70 or =70 years old with AOC, PDS has a trend toward improved PFS with a survival advantage if cytoreduced to no gross residual. Radical procedures can be tolerated without significant increased morbidity in this age group. Stage, absence of ascites and possibly CA125 may be used as selection criteria for PDS in these patients.

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595 - Poster Session

Treatment patterns and survival outcomes of recurrent adult-type granulosa cell tumors

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Objectives: Granulosa cell tumors are characterized by indolent growth and late recurrence; treatment of recurrent disease is not standardized. We sought to evaluate the outcomes of patients who underwent secondary and tertiary cytoreductive surgery as part of treatment for recurrent granulosa cell tumor.

Methods: A retrospective review was conducted of women diagnosed with primary or recurrent granulosa cell tumors at an urban university system between 2010 and 2019. Data collected included demographic, clinicopathologic, and treatment factors. Endpoints of treatment outcome was progression free survival. Statistical analyses were preformed using the Kaplan-Meier method, the log-rank test, and Fisher's exact test.

Results: 75 patients diagnosed with primary or recurrent granulosa cell tumor were identified. After excluding cases with inadequate follow-up and juvenile granulosa cell tumor, 69 patients were analyzed. The average age at diagnosis was 48.3 years (21.2-86.0). 82.6% of patients had stage I disease; the remainder had stage II (8.7%) or stage III (8.7%) disease. 15 of 69 patients (21.7%) were treated for recurrent disease. The average time to recurrence was 6.27 years (range 1.05-20.71). There was a significant correlation between optimal resection or staging (including omentectomy and peritoneal biopsies) and recurrence (OR 0.171, 95% CI 0.0553-0.560, p=0.0076). Fertility preservation was not associated with recurrence (p=0.08). 71% of women with recurrent disease underwent secondary cytoreduction. Secondary CRS was associated with a significantly higher progression free survival compared to medical management alone at