Carcinosarcomas of the uterine cervix are rare. Herein, we report a woman diagnosed cervical carcinosarcoma with remission of malignant epithelial component but persisting stromal component after radiotherapy—One Case Report

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Introduction Carcinosarcomas of the uterine cervix are rare. Herein, we report a woman diagnosed cervical carcinosarcoma with remission of malignant epithelial component but persisting stromal component after radiotherapy.

Case report A 30 y/o woman presented to our hospital with bulky cervical tumor FIGO stage IIIb. The cervical biopsy came from other hospital reported as adenocarcinoma. She was arranged for concurrent chemo radiation. However, Cisplatin was unable to give due to persisting pancytopenia after initiating radiotherapy. Bone marrow biopsy for her persisting pancytopenia disclosed acellular marrow. After completed external beam radiation therapy followed by brachytherapy, there is one cervical mass noted confined within the cervical canal, with biopsy disclosed sarcoma. She underwent abdominal total hysterectomy and bilateral salpingo-oophorectomy. Pathology revealed tumor cells with neuroectodermal differentiation, involving cervix, uterus and ovaries. After taken previous biopsy section together, a carcinosarcoma with heterogeneous neuroectodermal component was inferred, while the components of adenocarcinoma have been eradicated by previous radiotherapy and the components with neuroectodermal differentiation survived due to resistance. Unfortunately, chemotherpay was not eligible before bone marrow
transplantation and she still suffered from a progressive tumor recurrence and died 5 years later.

**Conclusion** The potential complexity and heterogeneity of cervical carcinosarcoma contributed to the variety of treatment modality. Such rapidly growing tumor may be responsive to radiotherapy and the role of chemotherapy may also be important, but their expected effects on the sarcomatous component may not be ideal. As a result salvage surgical intervention could be a therapeutic option for such locally advanced diseases.

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417 **KRAS MUTANT UTERINE CARCINOMAS**

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**Background** Inhibitors of KRAS mutations (KRASm) disease have shown efficacy in early clinical studies. Data informing about KRASm targeting in endometrial cancer (EC) are lacking.

**Methods** ECs (n=8336 with various histologies) were queried for presence of actionable mutations (592 genes) and fusions (Whole Transcriptome Sequencing) using Caris Genomic Profiling database. Comparison was done using Fisher-Exact/Chi-square (p values) and adjusted for multiple tests by Benjamini-Hochberg (q) and Pairwise nonparametric analysis using Wilcoxon Method.

**Results**

a. KRASm is a frequent genotype in Endometrial Cancer.

KRASm were detected in 15.2% of EC cases. Code was most frequently mutated, with G12D (31%) and G12V (27%) being the most common subtypes (figure 1).

b. Biomarkers of immunotherapy response co-occur with KRASm in EC.

MSI-H/dMMR and TMB-H (>10 mt/MB) were seen 36.4% and 42.8% in KRASm and 15.9% and 27.9% in KRASwt, respectively (p>0.05).

c. BRCA1/2 mutations were detected with equal frequency among KRASm and KRASwt. BRCA1/2 mutations were seen in 6% of KRASm vs 4.6% in KRASwt (p=0.033).

d. KRASm are mutually exclusive of oncogenic fusions. No fusions in FGFR1/3, MET, ALK were detected concurrently with KRASm. Overall, incidence of fusion was extremely low, independent of KRAS status.

**Conclusions** KRASm EC represents a genomically distinct group of endometrial cancers. Targeted therapy using this biomarker should be explored in clinical trials. Overlap exists with predictors of immunotherapy response, suggesting a possible immunotherapy combination option. Clinical trials to evaluate these strategies are needed.

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418 **CLINICAL TRANSLATION OF METHYLATED DNA MARKERS OF ENDOMETRIAL CANCER USING TAMPON-BASED DETECTION**

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**Objective** In tampon samples from women with and without EC, we tested methylated DNA markers (MDMs) for EC originally identified through discovery and validation in tissue.

**Methods** From 2/2013–8/2019, women ≥45 yrs with abnormal or postmenopausal bleeding or biopsy-proven EC were