Conclusion The two irradiation regimens used in HDR utero-vaginal brachytherapy in 3 or 5 fractions give similar oncological results with a comparable late toxicity.
Disclosures HR CTV= high-risk clinical target volume
EQD2= Equivalent dose in 2Gy fractions

#870 RADIOMIC PROFILES IMPROVE PROGNOSTICATION AND REVEAL TARGETS FOR THERAPY IN CERVICAL CANCER

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Introduction/Background Pelvic magnetic resonance imaging (MRI) is an important part of primary diagnostic workup in cervical cancer (CC), with MRI-assessed tumour size and pelvic tumour extent routinely guiding treatment decisions. Extraction of MRI-derived radiomic tumour features could improve cancer prognostics and may also reveal novel targets for treatment.
Methodology We manually segmented 3D volumes in 132 primary CC tumours and extracted 293 whole-volume radiomic MRI features. Unsupervised hierarchical clustering yielded three distinct patient clusters (Cluster 1 [n=52]; 2 [n=46]; and 3 [n=34]). Overlapping clinicopathologic, genomic (whole exome sequencing, n=65), transcriptomic (L1000 arrays, n=73) and molecular biomarker (n=84) data were utilized to characterize each cluster.
Results Patients in Cluster 2 and 3 had significantly reduced disease-specific survival (DSS) (hazard rate [HR]: 3.33; p=0.008) compared with patients in Clusters 1, even after adjusting for International Federation of Gynecology and Obstetrics (FIGO) 2018 stage and age (adjusted HR: 2.51; p=0.045). Cluster 3 tumours associate with high stage (p<0.001), large tumours (p<0.001), squamous histology (p=0.015), p53 negative or -overexpressing tumours (p=0.04) and aberrant TP53, -MYC and -MTORC1 signalling. The intermediate-risk Cluster 2 associates with increased and aberrant cell cycle- and Hippo signalling, suggesting CDK2/4 and YAP-TEAD inhibitors as plausible treatment options. The low-risk Cluster 1 associates with increased immune cell signalling.
Conclusion This study links radiomic signatures to distinct genomic profiles that may potentially aid in prognostication and tailoring of treatments and follow-up plans for cervical cancer patients.
Disclosures The authors declare no conflict interests.

#874 LOCALLY ADVANCED CERVICAL CANCER IN YOUNG WOMEN

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Introduction/Background The incidence of cervical cancer in young women is increasing. This study aims to analyze the clinicopathological characteristics, treatment, and prognoses of women aged ≤40 years with locally advanced cervical cancer.
Methodology Medical record data of 25 locally advanced cervical cancer patients aged ≤40 years treated at Salah Azaiez Institute of Oncology between January 2010 and December 2020 were reviewed. The overall survival rate was estimated using the Kaplan–Meier method. Prognosis-related risk factors were analyzed using univariate analyses.
Results The median age at diagnosis in our study was 35.8 years ± 3.13. Among 25 patients, 24 (96%) were diagnosed with squamous cell carcinoma and 1 (4%) with adenocarcinoma. In 12 cases (48%), the FIGO stage was ≤ IIB and in 13 cases (52%) FIGO stage was >IIB. The median tumor size at diagnosis was 54.6mm ± 17.37. 24% of patients had multiple sexual partners. Only 15 patients were treated with curative intentions. 3 patients presented locoregional recurrence. No patient presented metastatic recurrence. 7 patients presented progression during treatment. 17 cases of death during follow-up were noticed among 25 cases.

One-year disease-free survival (DFS) was 67.2%. lymphovascular space involvement (LVSI) (p=0.010) was a prognostic factor that affected disease-free survival. DFS was not significantly different for tumor size (p=0.0179), cell type (p=0.5) histological grade (p=0.45), parametrial involvement (p=0.068), and pelvic lymph node metastases (p=0.155).

One-year overall survival (OS) was 46.7%. Parametrial involvement (p=0.001), FIGO stage (p=0.028), and histological grade were risk factors for poor prognosis for these patients. Os survival was not significantly different for tumor size, LVSI, and pelvic lymph node metastases.
Conclusion Locally advanced cervical cancer in young women presents an overall prognosis worse than in older patients.
Disclosures We have no potential conflict of interest to report

#878 DEFINITIVE RADIOTHERAPY/CHEMORADIOTHERAPY RESULTS IN GERIATRIC PATIENTS WITH CERVICAL CANCER

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Introduction/Background To investigate the prognostic factors for survival, the long-term results and toxicities in elderly (≥65years) patients with cervical cancer who underwent definitive radiotherapy/chemoradiotherapy with a cervical cancer diagnosis.

Methodology We reviewed the clinical records of 458 patients with cervical cancer .The median age was 71 (65–91). The median treatment dose was 50.4 Gy (45–64).Overall survival (OS), cancer-specific survival (CSS), disease-free survival (DFS), distant metastasis-free survival (DMFS), and local recurrence-free survival (LRFS) were evaluated using Kaplan-Meier, log-rank, and Cox regression analyses; $p<0.05$ was considered statistically significant.

Results Median follow-up 48 months (6 -243); The 5-year OS, CSS, DFS, DMFS, and LRFS were 61.6%, 77.5%, 75.6%, 81.1%, and 91.6%, respectively. OS, CSS, DFS, DMFS influencing factors performance status (PS) ($p< 0.0001$) in univariate analysis, tumor diameter (≤4cm, >4cm) ($p= 0.004$, $p= 0.008$, $p< 0.0001$) histopathology (squamous, adeno and others) ($p= 0.001$, $p< 0.0001$), presence of lymph nodes (LN) ($p< 0.0001$), treatment response (complete, partial, unresponsive) ($p< 0,0001$) was statistically significant. For OS, age (65–70, 71–79, ≥80) ($p< 0.0001$), type of treatment (CCRT, RT) ($p< 0.0001$), Brachytherapy (BT) application ($p< 0.0001$); BT application for CSS and DMFS ($p= 0.025$, $p= 0.003$) and treatment response for LRFS ($p< 0.0001$) were significant parameters. In multivariate analysis, independent prognostic factors for OS, CSS, DMFS, and DFS, are treatment response ($p< 0.0001$,$p=0.003$), LN ($p< 0.0001$, $p= 0.007$, $p= 0.002$, $p= 0.003$) and PS for OS, DFS ($p= 0.003$, $p= 0.004$), the age for OS ($p= 0.045$), type of treatment ($p< 0.0001$). For DMFS, histopathology ($p= 0.026$) and BT application ($p= 0.049$) were found to be significant.

Conclusion Curative treatments for geriatric patients, especially in locally advanced cervical cancer, have a low rate of side effects but have a favorable effect on survival and definite CRT should be recommended in geriatric age.

Disclosures Curative treatments for geriatric patients, especially in locally advanced cervical cancer, have a low rate of side effects but have a favorable effect on survival and definite CRT should be recommended in geriatric age.

#879 SURGERY AFTER CONCURRENT CHEMORADIOTHERAPY AND BRACHYTHERAPY IN LOCALLY ADVANCED CERVICAL CANCER: MORBIDITY AND OUTCOME

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Introduction/Background This study was performed to evaluate the morbidity and therapeutic value of surgery after concurrent chemoradiotherapy and brachytherapy in patients with locally advanced cervical cancer (LACC).

Methodology We conducted a retrospective study at Salah Azaiez Institute of Oncology from January 1, 2010, to December 31, 2020, including 118 patients with LACC treated with concurrent chemoradiotherapy and pelvic radiotherapy followed by brachytherapy. The surgical treatment consisted of a hysterectomy, which ranged from radical hysterectomy to anterior pelvic exenteration, and lymph node resection.

Results 118 patients were enrolled over 10 years. The median age was 53 years±10.758. Patients' distribution according to FIGO stage was as follows: 72 (61%) patients ≤IIB and 46 (39%)>IIB. Among these patients, 49 (41.5%) experienced postoperative complications. 9 patients experienced Grade II morbidity while 18 patients presented Grade III morbidity. No postoperative mortality was observed. The median operative time was 215.59 min ±68.7. The median duration of hospitalization was 6.12 days ±15.7. 41 patients (34.7%) needed per-operative transfusions. The median number of packed red blood cells was 2.46 ±1.12. 39 patients presented preoperative complications. Per-operative bleeding was the most common complication observed in 38 cases.

Personal history of High blood pressure ($p=0.0149$), tumor size ($p=.0.051$), and pelvic anterior exenteration ($p=0.037$) were risk factors of postoperative morbidity.

Post-operative morbidity was not significantly different for age ($p=0.781$), FIGO stage ($p=0.969$), and per-operative transfusion ($p=0.799$).

Conclusion Surgery after concurrent chemoradiotherapy and brachytherapy for advanced cervical cancer lead to an acceptable morbidity. In our study, Personal history of High blood pressure, tumor size, and pelvic anterior exenteration were risk factors for postoperative morbidity.

Disclosures We have no potential conflict of interest to report.

#886 SUCCESSFUL TOPICAL IMMUNOTHERAPY WITH 5% IMIQUIMOD IN CERVICAL STUMP PREMALIGNANT LESION – A CASE REPORT

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Introduction/Background Imiquimod is an immune response modulator often used in the management of various clinical manifestations of human papillomavirus (HPV) infection. The aim of this case report is to present a possibility of non-surgical, pharmacotherapeutic approach with 5% imiquimod as an appropriate alternative to surgical procedures in selected patients with cervical premalignant lesions.

Results A 50-year-old female presented with cervical stump high grade squamous intraepithelial lesion (HSIL), seven years after laparoscopic supracervical hysterectomy. Current guidelines recommend surgery as preferable treatment modality for histologically confirmed cervical HSIL, after 6 months follow-up Pap test. Initial approach to management of patients with cervical stump HSIL must consider treatment-related morbidity. The goal of treatment is to prevent disease progression to invasive disease. Nonsurgical medical therapy with topical imiquimod appears to be more effective than no treatment, inducing regression of the disease in 73%, versus 50%. Considering these data, after biopsy and during 6 months' period of follow-up, we decided to initiate imiquimod therapy until the follow-up Pap test. Imiquimod treatment was started with self-applied vaginal imiquimod suppositories three times