**Methods** Scans from 20 patients with pelvic recurrence were used, delivering EBRT 45 Gy/25 fractions to pelvis followed by SBRT boost. Cumulative dose limits for bowel, bladder, sigmoid, rectum and sciatic nerve were converted to 5 and 10 fraction equivalent constraints. For iso-toxic planning, prescription was escalated/de-escalated until any OAR dose constraint was exceeded. Feasible tumour doses (EQD210) with 5 and 10 fractions were compared.

**Results** With conventional VMAT 20 Gy in 10 fractions, median GTV and PTV dose was 20.0 Gy (total EQD210 64.2 Gy). Using iso-toxic SBRT planning for central pelvic disease, median PTV dose (EQD210) was 29.9 Gy (total 74.1 Gy) with 5 fractions compared to 32.9 Gy (77.2 Gy) with 10 fractions and GTV 30.8 Gy (cumulative 75 Gy) versus 33.9 Gy (cumulative 78.1 Gy) (p < 0.0001). Similarly, with pelvic sidewall disease iso-toxic doses were increased with 10 fractions: PTV 42.2 Gy (cumulative 86.4 Gy) versus 45.5 Gy (cumulative 89.7 Gy); GTV 45 Gy (cumulative 89.2 Gy) versus 48.6 Gy (cumulative 92.9 Gy) (p < 0.0001).

**Conclusions** Longer fractionation can significantly increase deliverable tumour doses. Further investigation is required to determine optimal patient specific regimens.

**EP059/#489 IMPACT OF MANDATORY VERSUS OPTIMAL ORGAN AT RISK DOSE CONSTRAINTS FOR ISOTOXIC DOSE ESCALATION WITH AN SBRT BOOST FOR RECURRENT GYNAECOLOGICAL CANCER**

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**Objectives** Outcomes using external beam radiotherapy alone for pelvic recurrence are poor. Stereotoxic radiotherapy (SBRT) can potentially improve local control by dose escalation. Iso-toxic planning using cumulative OAR dose tolerances is internationally established for intrauterine brachytherapy, with GEC-ESTRO tolerances modified with new optimal constraints. Aim: To evaluate the impact of different OAR target doses on an iso-toxic dose-escalation approach with SBRT for locally recurrent gynaecological cancer.

**Methods** Dosimetric studies were undertaken on 20 planning scans, 10 central recurrent disease (CRD) and 10 pelvic sidewall recurrences (SWRD), delivering 45 Gy/25 fractions to pelvis followed by SBRT boost. Mandatory and optimal dose constraints were defined for 2 cc bowel bladder, sigmoid, and rectum, and 1 cc sciatic nerve. Starting with 20 Gy/5 fractions, the prescription dose was escalated or de-escalated until OAR dose limits were exceeded.

**Results** Median GTV volume was CRD 41.52 cm³, SWRD 26.17 cm³. With conventional VMAT boost, median PTV dose was 20 Gy (cumulative EQD 210 64.3 Gy) and GTV 19.8 Gy (64.1 Gy). For CRD, median SBRT prescription dose was 17.4 Gy/5 fractions (EQD 210 19.5 Gy) with optimal constraints, increased to 21.1 Gy (26.6 Gy) mandatory constraints. This resulted in median EQD 210 PTV 22.3 Gy (cumulative 66.6 Gy) versus 29.9 Gy (74.1 Gy); GTV 22.6 Gy (66.9 Gy) versus 30.8 Gy (75 Gy) respectively. With SWRD, higher prescription doses were feasible, optimal 23.5 Gy (28.8 Gy EQD 210) versus 26.7 Gy (34.1 Gy) mandatory. This resulted in EQD 210 GTV 29.9 Gy (79.2 Gy) versus 42.2 Gy (total 86.4 Gy); GTV 36.9 Gy (total 81.1 Gy) versus 45 Gy (total 89.2 Gy).

**Conclusions** SBRT boost can significantly dose escalate to tumour using mandatory GEC-ESTRO dose constraints, particularly for sidewall disease.

**EP060/#889 PATTERNS OF CARE AND TREATMENT OUTCOMES FOR ELDERLY WOMEN WITH CERVICAL CANCER – ARE THEY DIFFERENT? – A RETROSPECTIVE ANALYSIS**

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**Objectives** To evaluate the patterns of care and treatment outcomes in elderly patients with carcinoma cervix treated in our centre.

**Methods** We retrospectively analyzed the medical database of previously treated elderly patients diagnosed with carcinoma cervix between Jan 2013 to Dec 2018 after approval from the IRB.

**Results** The mean age of patients was 65 years (Range: 60-95). Of the 176 patients, 98 (56%) patients received only RT, 63 (35%) patients received CRT, five (3%) patients received adjuvant RT, 4 (2.8%) patients received chemotherapy and 1 (0.5%) patient received palliative RT. The most common schedule used for EBRT (External beam radiotherapy) was 50 Gy in 25 #, five days a week. The mean EBRT dose was 50 Gy (Range: 46-54 Gy). 63 patients (37%) received concurrent cisplatin (dose of 40 mg/sq.m). Out of 161 patients who completed EBRT, 19 patients received EBRT boost, 133 patients underwent intracavitary brachytherapy. LDR was used in 48 patients and HDR was used in 85 patients. 2 patients underwent interstitial brachytherapy and mould brachytherapy was used in 8 patients. The median OTT was 69 days (9.8 weeks). Acute grade 3 GI toxicities were found in 21 (12.8%) patients. The median follow-up duration was 22 months. Twenty patients had disease progression. The median PFS was 25 (14-31) months and median OS was 27 (18-35) months. 3 yr PFS was 37% and 5 yr PFS was 20%. 3 yr OS was 43% and 5 yr OS was 21%.

**Conclusions** To conclude, definitive radiotherapy comprising both EBRT and brachytherapy should be recommended even in the elderly women with careful assessment of comorbid conditions.

**EP061/#647 EFFECT OF THE EXTENT OF RADICAL EXCISION ON CLINICAL OUTCOMES AFTER RADICAL HYSTERECTOMY FOR EARLY-STAGE CERVICAL CANCER: A META-ANALYSIS**

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**Objectives** Although the extended resection of the paracervix during radical hysterectomy causes an increase in surgical complications, there is no clear evidence of whether it can contribute to improved prognosis of cervical cancer.
performed a meta-analysis for investigating the association between the extent of radical excision and survival after radical hysterectomy for early-stage cervical cancer.

Methods We searched studies which compared disease-free survival (DFS) or overall survival (OS) between type I (A) or II (B) and type III (C) hysterectomy reported till January 2022. In total, we used six studies including 1,010 patients with stage IB-IIB diseases in this meta-analysis. We compared DFS and OS, surgical outcomes, complications and the pattern of recurrence between the two groups.

Results There were no differences in DFS and OS (hazard ratios, 0.810 and 0.605; 95% confidence intervals [Cis], 0.539 to 1.215 and 0.324 to 1.130 between type I (A) or II (B) and type III (C) hysterectomy. Operation time and hospitalization were shorter, and blood loss and the rate of bladder dysfunction were less (standard difference in means, -1.213, -0.794, -1.010 and -0.855; 95% CIs, -1.360 to -1.065, -0.991 to -0.597, -1.170 to -0.850 and -1.233 to -0.558) in type I (A) or II (B) hysterectomy. However, there were no differences in surgical complications and the pattern of recurrence between the two groups.

Conclusions Type I (A) or II (B) hysterectomy may have the similar effect on survival to type III (C) hysterectomy for early-stage cervical cancer with an improvement of surgical outcomes and bladder dysfunction.