Data from the EMBRACE and retroEMBRACE studies show significant correlation between dose and outcome for both local control and morbidity. While there is currently not international consensus on dose planning aims and dose prescription in cervix cancer, the dose effect data from the EMBRACE and retroEMBRACE studies will change this situation. The upcoming evidence can be used to recommend certain dose planning aims and dose prescription levels. A new study (EMBRACE II) will for the first time implement a prospective dose prescription protocol for both target and organs at risk based on clinical outcome data from EMBRACE and retroEMBRACE. EMBRACE II will be initiated in 2015.

SP-0127
Clinical impact of IGABT in cervical cancer
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Abstract not received.

SP-0128
Patient reported quality of life with IGABT in cervical cancer
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Image guided adaptive brachytherapy (IGABT) as part of combined radiochemotherapy for locally advanced cervical cancer is associated with improved rates of local control with simultaneous decrease in morbidity compared to use of standard brachytherapy plans in several institutional series. Besides tumor control and morbidity, health related quality of life (HR-QoL) including patient reported symptoms can provide additional important information to evaluate treatment efficacy. While clinician-assessed morbidity scales are objectively defined, patient reported symptoms provide a subjective evaluation without clinical interpretation. Several studies have pointed out that there can be considerable underreporting of morbidity when patient reported symptoms are taken into account, especially for low grade morbidity. Comparison of HR-QoL results with age matched normal population data can help to point out which symptoms or issues are most prevalent during follow-up after treatment. In addition these results can provide patients with more detailed information on what to expect during follow-up.

Most HR-QoL studies in patients with cervical cancer report more symptoms of fatigue, nausea, appetite loss, diarrhea, pain and insomnia, affecting global health status and emotional, social and role functioning, although part of these symptoms recover over time. Most studies with longer follow-up after treatment still find impairments in functioning compared to the general population. And some of the symptoms may persist years after treatment, like diarrhea, urinary frequency and leaking of urine. In addition, survivorship studies indicate that sexual symptoms are prevalent and sexual functioning is frequently impaired and a major source of distress. The EMBRACE study (www.embracestudy.dk) investigated the introduction of IGABT in a multicentre setting and included prospective HR-QoL assessment with EORTC quality of life questionnaires. This trial started in 2008 and has included over 1200 patients. In an interim EMBRACE report, a comparison between CTCAE morbidity and EORTC patient reported symptoms confirmed that there was considerable underestimation between both endpoints. Preliminary EMBRACE HR-QoL results of this study including a comparison with age matched norm population data will be presented.

In conclusion, HR-QoL outcomes provide useful additional information besides tumor control and clinician-assessed morbidity. These outcomes provide useful information when counselling patients on what to expect regarding functioning and symptoms. Patient reported HR-QoL and symptom endpoints can play and important role in future research in order to to optimize the therapeutic window, to decrease most prevalent symptoms and to increase patient functioning and HR-QoL during follow-up.

OC-0129
Image-guided adaptive brachytherapy in cervical cancer: towards a personalization of planning aims
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Purpose/Objective: To identify prognostic factors for local control in patients treated for locally advanced cervical cancer with image guided adaptive brachytherapy, and analyse their potential impact on planning aims.

Materials and Methods: Patients treated with curative intent by a combination of external beam radiotherapy and pulsed-dose rate brachytherapy were selected. Local failure was defined as any relapse in the cervix, vagina, parametria, or uterus during follow-up. Prognostic factors were selected based on log rank tests and then analyzed with a Cox model. Dose/effect correlations were performed using the Probit model.

Results: Two hundred and twenty-five patients treated from 2006 to 2011 were included. According to the FIGO classification, 29% were stage IB, 58% stage II, 10% stage III, and 3% stage IV; 95% received concomitant chemotherapy. Thirty patients were considered having incomplete response or local failure. Among the selected parameters, D90 for HR-CTV, D90 for IR-CTV, the overall treatment time, the TRAK, and the HR-CTV volume appeared significantly correlated with local control in univariate analysis. In multivariate analysis, overall treatment time > 55 days and HR-CTV volume > 30 cm³ appeared independent. The Probit analysis showed significant correlations between the D90 for both CTVs, and the probability of achieving local control (p=0.008 and 0.024). The thresholds to reach to warrant a probability of 90% of local control were 85 Gy to