distant metastases are found no further efforts are focusing on locoregional control, we risk to neglect that once loco-regional treatments on overall survival. By merely the efficacy of systemic treatments with the influence of and secondly because of the complex interaction between patient will be affected heavily by any type of recurrence detectable locoregional recurrences as a separate endpoint demonstrated. No increase was seen in the other causes of the studies) breast cancer specific survival was leading to a 10-year overall survival exceeding 80%, clinically recently presented results. In this era of earlier diagnosis and improvement of lymph node treatment to overall outcome for early stage breast cancer is improving. This quality of radiotherapeutic approaches to treating locoregional lymph nodes in breast cancer is achievable, especially the internal mammary lymph nodes is achievable, which is likely to result in a further improvement of the benefit of loco-regional RT for patients with early stage breast cancer that have a risk for bearing microscopical tumor deposits in the regional lymph nodes.

SP-0017
Technical approaches to regional lymph node irradiation for breast cancer
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The quality of radiotherapeutic approaches to treating locoregional lymph nodes in breast cancer is improving. This talk will review the latest evidence pertaining to each aspect of the planning and treatment pathway in order to inform best practice. Recently published atlases capable of improving consistency in outlining target and non-target volumes will be reviewed. Using data relating outcomes to dosimetry, we will then review the evidence base for target and non-target tissue dose constraints and objectives. Different radiotherapeutic approaches including breath-hold, volumetric-modulated arc therapy, and proton beam therapy will be compared in terms of dosimetry and resource implications. Potentially disease efficiency savings in the treatment pathway will also be discussed together with a review of the possible impact of bluer-sky technologies.

Symposium: Assessment and management of rectal morbidity

SP-0018
Towards a scoring system built on six distinct radiation-induced illnesses producing late gastrointestinal effects
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As shown in randomized studies, radiotherapy has a critical role when we cure prostate cancer by using multimodal treatment strategies. We frequently use radiotherapy to cure gynecological cancer. Both Intensity-Modulated Radiation Therapy and Volumetric Modulated Arc Therapy have the potential to drastically increase the ratio between possibilities for cure and risk of late effects. Still, crude measurements of patient-reported outcomes, as well as factors that may modify the how radiation cause late effects, compromise these possibilities. We lack details to provide parameters from dose-volume models that utilize the full potential of these new technologies. Concerning bowel health, current scoring systems of radiation-induced late gastrointestinal must be refined. Important socially invalidating symptoms are not scored. An example is unexpected defecation into clothing - not sensing the need to go to the toilet and a sudden defecation into clothing as if one were already on the toilet. We documented this symptom among 11 percent of gynecological-cancer survivors. Another example is frequent and uncontrolled noisy flatulence. Traditional scoring systems utilize a scale that do not distinguish or clearly depict person-incidence (events per individual per time unit), intensity and duration. But, probably most important, as we learn that decreased bowel health depends on several different types of radiation-induced illness, we understand that grouping symptoms from different illnesses together in a score could be our way to acquire knowledge for prevention or relief. We cannot disentangle these different radiation-induced illnesses when symptoms from several illnesses are grouped together in the data sets we retrieve. Clearly, new strategies are needed. In my talk, I will propose a scoring system based on the data indicating that the at least 28 radiotherapy-induced atomized late gastrointestinal symptoms derive from six different illnesses, that is, six sets of risk organs or mechanisms. We have data from around 1500 survivors supporting this position. As we accumulate data for each of these six illnesses, we can define parameters in dose-volume models built on patient-reported outcomes much better than we previously could. Possibly we can also learn how, by employing probiotics or dietary changes, we can influence the interplay between the gut flora and stem-cell renewal to counteract inflammatory processes that probably are important for several of the six illnesses. Moreover, the knowledge may stimulate development of mouse models in which we can test, for example, how different bacterial species influence radiation-induced inflammation in the rectal wall. In the talk, I will give preliminary results from the establishment of such a model. A simplified nomenclature could label the six illnesses as involving processes resulting in leakage-related symptoms, urgency-related symptoms, constipation-related symptoms, symptoms...