Radboud University Medical Center, 874 Radiation Oncology, locally advanced rectal cancer. The cumulative locoregional recurrence rate for patients with chemoradiotherapy was feasible and could decrease the risk of complications. Grade 3–4 tenesmus was more common in 38.1% of patients in the Capox-RT group and in 29.2% in the Cap-RT group (p = 0.041). Grade 3-4 acute toxicity was observed in 38.1% of patients in the Capox-RT group and 94.1% (238/253) and 92.1% (233/353) in the Cap-RT group, respectively. Grade 3-4 nausea (2.2% vs. 0%), grade 3-4 vomiting (1.8% vs. 0%), and grade 3-4 fatigue (3.1% vs. 0%).

Conclusions: The interim analysis revealed that inclusion of oxaliplatin into capecitabine-based postoperative chemoradiotherapy was feasible and could decrease cumulative locoregional recurrence rate for patients with locally advanced rectal cancer.

Symposium: Future in Radiation Oncology: The way to the right central position

SP-0614
How can we help patients to make a treatment choice that fits them best? (Shared decision making)
J.J. Van Tol-Geerdink
1Radboud University Medical Center, 874 Radiation Oncology, Nijmegen, The Netherlands

Traditionally, oncology patients are inclined to follow the treatment advice of their physician without asking too many questions. However, for many patients different treatment options are available. Each option will have its own pros and cons, which may be weighed differently by individual patients. This calls for shared decision making (SDM) and patient involvement in the treatment choice. In order to involve patients as partners in decision making, however, different steps are required. Patients should be invited to participate in the tradeoff between options. They need evidence-based information on the risks and benefits of different options presented in a structured way, preferably using visual aids. And they need to be stimulated to think about which aspects are most important to them.

When available, decision aids are useful tools to give patients evidence-based information and to help them make a personal tradeoff. Decision aids have proven to be effective, e.g. in a recent Cochrane review (2011). Knowledge increases, less patients remain undecided on the their treatment preference, more patients take an active role in decision making, and they are more aware of which treatment outcomes are most important to them. As a consequence, the treatment choice better fits their personal situation and their individual preference.

Within radiotherapy, we studied patient involvement in the choice between a lower or higher radiation dose reflecting the tradeoff between the likelihood of cure and the likelihood of serious side effects. Other radiotherapy-related choices include radiotherapy vs. surgery, radiotherapy vs. best supportive care, chemoradiotherapy vs. radiotherapy alone or conventional fractionation vs. hyper- or hypofractionation.

Some physicians may hesitate to involve cancer patients in treatment decisions. One reason may be that some doctors believe they can predict their patients preferences, so they don’t need to bother their patients with trade-offs. However, preferences for treatment and for involvement appear to be hard to predict for physicians, and even for patients themselves. Once informed, they become more active partners in decision making than they previously predicted, and their preferences can differ from what their physicians expected. Moreover, sharing information about the pros and cons of different treatment options is appreciated by the vast majority of patients, even by those who prefer to leave the ultimate decision to their physician.

Other possible barriers for SDM are the assumptions that patients are unable to make a consistent choice, that it may be a burden for patients to take responsibility for the decision or that it may induce regret over the choice later on, especially for patients with poor outcome. However, research shows that patient choices are consistent with their values and concerns. Moreover, anxiety is not increased and regret, if anything, appears to be reduced, particularly in those patients that experience poor outcome. Finally, the idea that shared decision making may be too time consuming is not confirmed by the results of recent implementation studies. Illustrated by our research, (mis)perceptions and tips about shared decision making will be discussed.

Proffered Papers: Radiobiology 4: Novel targeted agents

OC-0615
Voxel-based perfusion normalisation in GBM patients included in a phase I-II trial of RT/Tipifarnib combination S. Ken1, A. Deviers1, T. Fillieron2, I. Catala3, J.A. Loterie4, V. Lubrano5, I. Berry4, P. Péran6, E. Cohen-Jonathan Moyal1, A. Laprie7
1Institut Claudius Regaud IUCT-Oncopole, Department of Radiotherapy and Medical Physics, Toulouse, France
2Institut Claudius Regaud IUCT-Oncopole, Bureau des Essais Cliniques, Toulouse, France
3Centre Hospilatier Universitaire, Purpan, Toulouse, France
4Centre Hospilatier Universitaire, Rangueil, Toulouse, France
5INSERM UMR 825, Imagerie Cérébrale et Handicaps Neurologiques, Toulouse, France

Purpose/Objective: Based on our lab results showing that the Farnesyl Transferase Inhibitor, Tipifarnib induced a vascularization normalisation, oxygenation and radiosensitisation in glioblastoma (GBM) model, we performed a phase I-II clinical trial associating Tipifarnib with radiotherapy in GBM patients. The aim of this study was to assess by dynamic susceptibility contrast MRI (DSC-MRI) the effect the combined treatment on tumor perfusion.

Materials and Methods: Eighteen patients with newly diagnosed GBM were included in a phase I-II clinical trial associating RT with Tipifarnib, they underwent conventional anatomical MR imaging and DSC-MRI before and two months after treatment (M0 and M2 respectively). Anatomic volumes of interest (VOIs) were defined by contrast-enhanced (CE) regions on post-gadolinium based T1 MR images and areas of hyper-intense signal on T2 MR images. Perfusion changes between M0 and M2 were assessed by measuring the variation of the median relative CBV (rCBV) inside these anatomical VOIs. Another voxel by voxel analysis of CBV values classified 138,646 tumor voxels (inside the CE VOI) into High, Normal, and Low_CBV_TUMOR according to the distribution of CBV in the contralateral normal tissue: for CBV value higher than the 95th percentile of the normal contralateral distribution, the voxel was classified in the High_CBV_TUMOR class (red voxels); for CBV value between the 25th and the 75th percentile, the voxel was classified in the Normal_CBV_TUMOR class (green voxels) and for CBV value below the 25th percentile, the voxel was classified in the Low_CBV_TUMOR class (blue voxels). All