beginning, 13.6, 6.9, 4.7, 2.0 at the end, and 1.9, 0.8, 0.6, 0.6 at one month after RT.

Conclusion: Our study results suggest that thixotropic gel containing Tea Tree oil is safe and effective in the management of acute skin reaction of RT and effects in a late-developed and lower rate of severe dermatitis in HNC patients. Moderate pain with rapid recovery of quality of life is also impressed. Further prospective randomized controlled studies will be conducted for validation.


2867

Pre-treatment Class Attendance and Outcomes in Head & Neck Cancer Patients Undergoing Radiotherapy

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Purpose/Objective(s): The pre-treatment (“Prehab”) class at our center is a psychoeducational group intervention offered to all patients starting radiotherapy for head & neck cancers (HNC). It focuses on symptom management, psychosocial support, swallowing, and nutrition during treatment. The purpose of this study is to investigate any relationship of class attendance with treatment outcomes.

Materials/Methods: In this retrospective cohort study, records of patients with HNC receiving radiotherapy (RT) as part of curative intent treatment from September 2013 to December 2017 were retrieved from our prospective quality assurance tool, the Anthology of Outcomes, and cross referenced with class attendance. Overall survival (OS), locoregional recurrence free survival (LRRFS), and locoregional recurrence (LRR) were compared between prehab attendees (PA) and non-attendees (PNA).

Results: There were 864 PA and 1128 PNA. For PA and PNA, OS was 88% vs 80% (p<0.001), LRRFS was 84% vs 75% (p<0.001) and LRR was 11.7% vs 16% (p=0.016) respectively at 2 years. At baseline, PA were less frequently ECOG performance status ≥2 (3% vs 5%, p = 0.002), current smoking (29% vs 40%, p < 0.001), heavy drinkers (14% vs 18%, p = 0.035), P16 negative oropharynx cancers (17 vs 25%, p = 0.003), T3/T4 (41% vs 48%, p = 0.001), and N2/N3 (51% vs 55%, p<0.001). On univariable analysis, baseline characteristics significantly associated with worse OS were (HR, 95% CI): ECOG ≥2 (6.34, 4.25 – 9.46), current smoking (1.96, 1.56 – 2.47), heavy drinking (1.67, 1.26 – 2.21), PNA (1.59, 1.26 – 2.03), age≥62 (1.67, 1.33 – 2.11), and RT alone (2.04,1.5-2.77). On multivariable analysis (MVA), OS and LRRFS were independently and unfavorably associated with PNA, as were current smoking, ECOG ≥2, T3/4, and N2/3. Treatment other than concurrent chemoRT was also associated with worse OS, LRRFS, and LRR on MVA.

Conclusion: Patients with poor performance status, current smokers, heavy drinkers, and those with more advanced cancers were less likely to attend Prehab. However, class attendance remains independently associated with better cancer outcomes. Whether the class itself influences outcomes or serves as a marker of favorable prognosis patients cannot be determined from this study design, but merits future study.


2868

Head and Neck Reirradiation with Proton Therapy (PBT), IMRT, or Stereotactic Radiotherapy (SABR): Clinical Outcomes of a Prospective Registry

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Purpose/Objective(s): Locoregional recurrence remains the most common pattern of failure in head and neck cancers (HNC). Despite emerging retrospective data showing durable local control and improved survival with highly conformal reirradiation (reRT) techniques, prospective data of large patient cohorts is lacking. Here we present preliminary clinical outcomes of our prospective reRT registry protocol.

Materials/Methods: 167 patients with history of prior HN radiation were prospectively enrolled and treated with curative-intent IMRT, proton therapy (PBT), or stereotactic radiotherapy (SABR) between 2015 and 2018 for recurrent or second primary HNC. Outcomes were evaluated using Kaplan-Meier and stratified by treatment modality. Toxicity was evaluated using CTCAE v4.03. UV A and MVA was performed via Cox proportional hazards and logistic regression modeling.

Results: A total of 69 IMRT, 54 SABR, and 44 PBT reRT courses were assessed. Overall median follow-up was 18.2 months (0.4-45.7). There were no significant differences in age, gender, performance status, smoking status, or previous RT dose among treatment groups. The mean reRT BED (E2B) 10 was 76.6±8.7 Gy. Overall, 55% received upfront surgery (SABR 28% vs. 55% PBT vs 77% IMRT, p<0.0001), and 66% received chemotherapy. 1- and 2-year OS rates were 83% and 70%, with no differences by radiation modality (p = 0.584). Median time to LRF and PFS were 23.2 months (95% CI: 13.3-33.1) and 13.6 months (95% CI: 9.2-18.0), respectively, with no significant differences noted. Table 1 provides a summary of stratified clinical outcomes stratified. 11% of patients developed DM. In the 8 patients with DM before reRT, there was a 14.9 month median OS with only one death and one LRF. On MVA, SCC histology was associated with greater mortality (HR 4.1, 95% CI 1.6-10.2;