

135 Outcome of HIV Head and Neck Squamous Cell Carcinoma Treated with RT and Chemotherapy

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Purpose/Objectives(s): To report the outcome of radiation therapy (RT) +/- chemotherapy in HIV seropositive patients with Head and Neck Squamous Cell Carcinoma (HNSCC). **Methods/ Materials:** This is the largest single institution retrospective study to date of 71 HIV patients with HNSCC treated from January 1997-2010. The median age at RT, HIV diagnosis, the duration of HIV seropositive was 51 (32-72), 34 (25-50), and 11 years (6-20) respectively. Seventy patients had SCC and one had submandibular salivary duct carcinoma. AJCC 7th edition stages I-II, III and IVa/b were: 22%, 27%, 51% respectively. Subsites comprised the LX (37%), OPX (32%), Oral Cavity (13%), HPX (7%), NPX (4%), OP (4%), nasal cavity (3%), and SMD (1%). All patients had ECOG performance scale of (0, 1). Patients were treated definitively with RT +/- chemotherapy (CDDP, carboplatin, or Cetuximab). Fifty patients (70%) were on HAART during treatment, and the median CD4 count was 290 (range, 203-1142). Median dose of 70 Gy (66-70) was delivered to the gross disease, high risk neck 60-63 Gy, low risk neck and lateral retropharyngeal nodes 54 Gy. All fractions were given at the rate of 1.8-2 Gy per fraction. Median duration of treatment was 52 (49- 64) days. Twelve pts (17%) underwent planned neck dissection for N3 disease. The following data were tabulated (CD4, CBC, viral load; before, during and after CCRT), duration of HIV, race, age, gender, HAART type and duration, Stage, LRC, and OS. **Results:** After a median follow up of 47 months (7-140). The 4-year LRC and OS were 69% and 55% respectively. Seven patients (10%) developed second primary within the first 5 years of completion RT (2 Anal and 5 HNSCC). The LRC for Stages III/IV LX and OPX SCC (which represents >67% of the cohort) was 76, and 70% respectively. A Chi-square test and univariate analysis showed statistically significant relationship between LRC and the duration of RT ($P < .001$), and positive trends with weight loss <10% and absence of second malignancy. Due to the relatively small sample size with diverse subsites, multivariate analysis did not show any statistically significant relationship. **Conclusions:** HNSCC with coexisting HIV remains a challenging clinical problem. Our data show that definitive RT +/- chemotherapy for HIV seropositive HNSCC appears to be less effective compared to the observed rates of LRC, and OS of other HNSCC without HIV. Due to the advances in the HAART therapy which prolongs the HIV patients' survival, the likelihood to developed HIV related malignancy increases. It is extremely important to establish better effective regimens to improve outcomes in HIV positive HNSCC pts. **Author Disclosure Block:** W.F. Mourad: None. K.S. Hu: None. R.A. Shourbaji: None. E. Kaplan-Marans: None. W. Lin: None. T. Tran: None. B. Culliney: None. M. Urken: None. M. Persky: None. L.B. Harrison: None.