

Quality of Life Differences in Male and Female Patients with Head and Neck Cancer

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Purpose/Objectives

- Few studies examine objective differences in men (M) and women (W) undergoing RT for head and neck cancer (HNC)
- Previous studies suggest lower HNC incidence in women and suggest differences in HNC incidence attributable to hormonal levels.
- HNC association with smoking, alcohol, and occupational history in women may be also different in M vs. W.
- Goal is to compare Quality of life (QOL), numerical lab data, and clinician-assessed toxicity between M and W undergoing and recovering from RT for HNC.

Materials/Methods

- Patients undergoing definitive chemoRT or postoperative RT+/- chemotherapy were included.
- HN subsites included oral cavity, oropharynx, nasopharynx, larynx, hypopharynx and cervical esophageal cancers.
- Prospectively collected data from patients and clinicians at the point of care at baseline, weekly through RT and at every 3 months through 24 months.
- Clinician-assessed measures included mucositis, dermatitis, thrush, KPS, and BMI.
- Patient-Reported outcome data (PRO) included Functional Assessment of Cancer Therapy (FACT) scores (General, Head and Neck) assessed at baseline, during RT, and followup (fu).
- Analysis for significant differences in M v. W. lab values included hemoglobin, platelets and albumin were assessed for significant differences using a two sample t-test.

Results

Scores of FACT Subdomains Between Male and Female Patients

FACT-H&N Scores	Time ¹					
	Baseline		12 months		12 mos p	
	Male (N=26)	Female (N=6)	Baseline p ²	Male (N=199)	Female (N=58)	
Physical Well-Being (PWB) ³	24.00 (3.83)	17.50 (5.13)	0.001*	24.93 (3.61)	23.09 (4.74)	0.002*
Social/Family Well-Being (SWB)	22.55 (5.28)	18.83 (6.21)	0.1	23.44 (5.04)	23.04 (4.54)	0.6
Emotional Well-Being (EWB)	18.62 (3.83)	12.83 (5.71)	0.005*	20.79 (3.20)	18.99 (4.30)	<0.001*
Functional Well-Being (FWB)	20.07 (6.31)	12.50 (5.79)	0.012*	22.98 (5.08)	21.39 (5.20)	0.038*
Head and Neck Cancer Subscale (HNCS)	31.81 (5.15)	25.67 (7.03)	0.02*	31.33 (6.60)	29.03 (5.94)	0.017*
FACT-H&N Trial Outcome Index (TOI)	75.88 (13.13)	55.67 (16.51)	0.003*	79.25 (13.12)	73.51 (13.65)	0.004*
FACT-G total score	85.24 (16.38)	61.67 (15.65)	0.003*	92.14 (13.00)	86.52 (14.15)	0.005*
FACT-H&N total score	117.05 (19.26)	87.33 (20.67)	0.002*	123.48 (17.50)	115.55 (18.41)	0.003*

¹Time after start of radiation therapy

²p-value was calculated by 2-sample independent t test. Equal variances were assumed unless the test for equality of variances was significant at p<.05

³All the values were displayed as mean (SD)

- Lab values available for 281 patients, (75% M).
- At baseline, W had lower Hgb (mean 11.6W, 13.1M, p>0.05)
- There were no differences in baseline platelets (mean 268.9W, 248M, p=0.08), or Albumin (mean 4.01W, 4.1M, p=0.18).
- M experienced a greater decline in both hemoglobin (p<0.05) and albumin (p<0.05), but not platelets (p=0.96) from baseline and end-of-treatment levels.

- Lab value differences persisted at the 6-month fu, but resolved at the 12 month post-RT fu.
- There were no differences between M v. W on KPS, mucositis, presence of thrush, and dermatitis.
- These were significantly higher in M and F with BMI ≥ 30 kg/m².
- Men had higher FACT in nearly all subscale scores at baseline and 1-year post RT, reflecting higher QOL in M
- No differences between the FACT- Social Well Being subscale in either gender
- No differences in M v. W on FACT between 3-6 month fu and 6-12 month fu.
- For men vs. women that utilized a feeding tube, men reported higher FACT scores.

Conclusions

- Significant differences in M v. W were found in QOL measures and laboratory values
- No difference found in clinician-assessed measures
- PRO measures are subject to the patient's individual perception, which may be different in males vs. females.
- Factors that may affect global quality of life may be correlated with the captured longitudinal measures of physiologic distress.