Quality of Life and Spirituality Before and After Radiotherapy in Patients with Lung Cancer: Preliminary Results from the Knight Cancer Institute

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Quality of life (QOL) and palliative care in the treatment of cancer have been areas of increased focus in recent literature. A number of studies have confirmed the importance of spiritual well-being as part of the cancer experience, and several have demonstrated positive associations between improved spiritual well-being and improved QOL in cancer patients.
Background

- Balboni et al, Whitford et al, Prince-Paul, and Johnson et al all confirmed positive correlations between spiritual well-being and quality of life in cancer patients.
- Weaver and Flannelly demonstrated an association between good spiritual well-being and positive, active cognitive-coping strategies.
- McCoubrie and Davies also demonstrated an inverse correlation between good spiritual well-being and depression and anxiety.
Study Goals

✧ The current study aimed to document quantitative changes in QOL and spiritual well-being in lung cancer patients undergoing radiotherapy (RT).

✧ Additionally, we sought to describe differences from patients undergoing RT for different diagnoses.
Methods

- 406 pts receiving RT for any diagnosis between 1/1/2006 and 12/31/2008
- Participants completed the Functional Assessment of Cancer Therapy General (FACT-G) and Spirituality (Sp-12) PRO questionnaire tools prior to the first treatment and following the last.
Methods

- The FACIT-Sp is a combination of the FACT-G quality of life instrument and the Sp-12 spiritual well-being instrument.
- The 108-point FACT-G is comprised of four 24 to 28-point subscales measuring physical, emotional, functional, and social domains.
- Sp-12 is a 48-point scale including two subscales, meaning-peace and faith.
- The maximum possible score for the combined FACIT-Sp is 156 (best possible quality of life).
Methods

- Pre- and immediately post-RT course scores were compared using student $t$-tests with Bonferroni correction for multiple comparisons (8 comparisons, alpha = .00556).
- Distributions of responses as reported by lung cancer and non-lung cancer patients were compared utilizing chi-square analysis.
Results: Pre-Treatment

- Physical Well-Being
- Social Well-Being
- Emotional Well-Being
- Functional Well-Being
- FACT-G
- Meaning-Peace
- Faith
- Sp-12
- FACIT-Sp

The chart compares the results between Non-Lung and Lung Ca categories for various wellbeing aspects.
Results: Post-Treatment

- Physical Well-Being
- Social Well-Being
- Emotional Well-Being
- Functional Well-Being
- FACT-G
- Meaning-Peace
- Faith
- Sp-12
- FACIT-Sp

Non-Lung
Lung Ca
## Results

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Results

- Additionally, a weak but statistically significant positive correlation was identified between having lung cancer and change in overall QOL ($r=0.126$, $p=0.012$).
- This correlation remained consistent when controlling for palliative vs definitive goals of treatment ($r=0.110$, $p=0.029$).
Conclusions

❖ At the time of presentation for radiotherapy, lung cancer patients appear to have worse physical, emotional, functional and spiritual well-being than patients undergoing therapy for other diagnoses.

❖ Some of these differences, particularly those in spiritual well-being, appear to equalize over the course of treatment.

❖ Unlike lung cancer patients, non-lung cancer patients did not demonstrate a significant worsening of overall QOL over the course of treatment, in keeping with previous literature indicating an important, positive link between spiritual well-being and overall QOL.

❖ This may suggest a missed opportunity to improve overall QOL in patients with diseases with less mortality by focusing on supporting their spiritual well-being.
Acknowledgments

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✧ Thanks to the OHSU Radiation Medicine patients who so patiently completed these questionnaires so that we might learn to better support those that followed them.