



Quality of Life Measurements in Patients Receiving Radiation Therapy for Colorectal Malignancies as Compared to Other Gastrointestinal Malignancies

BT Samuelson^{1,4}, EK Fromme^{2,3}, J Waller², CR Thomas, Jr.^{2,3}

¹School of Medicine, ²Radiation Medicine, ³HematologyOncology, Knight Cancer Institute at the Oregon Health & Science University, Portland, OR, ⁴Recipient of the 2011 Rubinstein Radiation Research Scholar Award

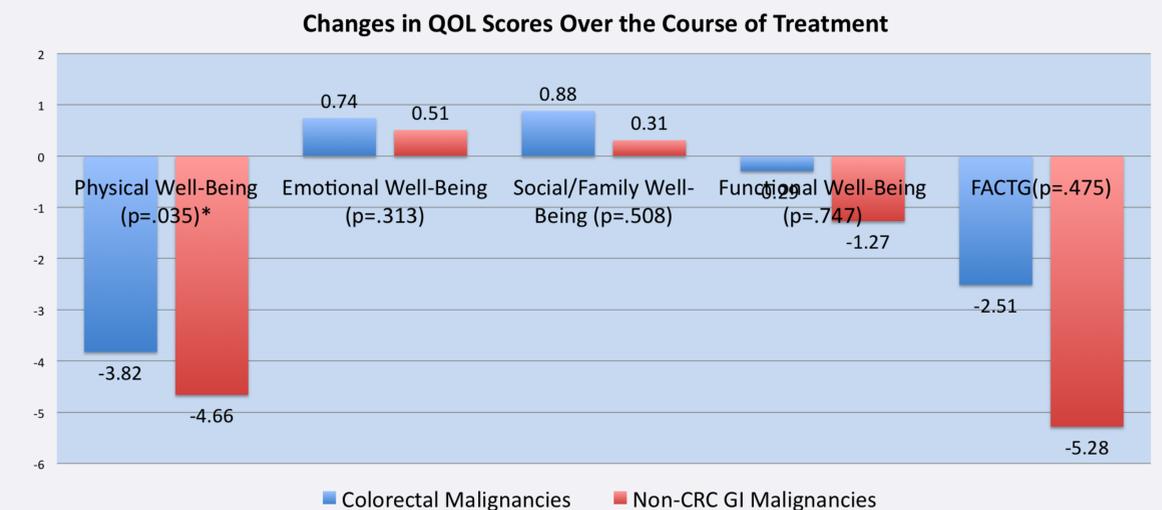
Background: Therapy for GI malignancies has long been known to have a marked impact on quality of life, yet this relationship remains poorly understood. The specific aim of this analysis was to analyze changes in QOLife in patients (pts) with GI cancer undergoing radiotherapy (RT) in an NCI-Designated cancer center.

Methods: A retrospective, IRB-approved chart review was performed of 722 pts receiving RT for any cancer diagnosis between 1/1/2006 and 12/31/2008. Subjects completed the Functional Assessment of Cancer Therapy General (FACT-G) questionnaire before and after RT. Pre- and immediately post-RT course scores were compared using student *t*-tests. Chi-square analysis was used to compare distributions.

Results: 722 of 1369 (52.7%) patients with all forms of cancer participated in the database. Of these, complete pre and post RT data were available for 68 (60.2%) pts with GI malignancies. Average age was 62 years, 54 (79.4%) were male and 49 (72.1%) received definitive treatment. 29 (42.6%) had esophageal or gastric cancer, 19 (27.9%) had colorectal cancer and 20 (29.4%) had other GI malignancies such as pancreatic or hepatobiliary. Colorectal cancer pts fared better in overall QOL than non-colorectal GI malignancy patients, with a non statistically significant drop in FACT-G of only 2.51 points ($p=0.475$), below the previously calculated minimally important difference range (MID). Non-colorectal GI malignancy patients demonstrated a larger, statistically significant drop (5.28 points, $p=0.011$), within the MID range. This difference appears to be largely due to the fact that colorectal patients demonstrated a less dramatic decrease in physical well-being (PWB) compared to any other GI malignancy, as demonstrated by Chi-square analysis (1-sided p -value 0.041). Additionally, only 26.3% of colorectal cancer pts demonstrated a decrease in functional well-being (FWB) greater than or equal to previously calculated MID whereas 40.4% of non-colorectal GI malignancy pts demonstrated such a decrease (NSS, $p = .250$).

Conclusions: Physical well-being and overall quality of life are known to decline in patients with GI malignancies. Patients with colorectal disease appear to fare better in physical well-being and overall QOL measures than those with esophageal, stomach, pancreatic or hepatobiliary malignancies. Additional investigations with larger studies are warranted to further define these differences.

	Colorectal Malignancies	Non-Colorectal GI Malignancies
N	19 (28%)	49 (72%)
Avg Age	59.63	63.00
Male	13 (68%)	41 (83.7%)
Female	6 (32%)	8 (16.3%)
Definitive Tx	16 (84%)	33 (67.3%)
Palliative Tx	2 (11%)	16 (32.7%)



* Within or above previously calculated minimally important difference range