

Emotional Well-Being and Quality of Life in Patients Undergoing Radiation Therapy for Pancreatic and Hepatobiliary 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

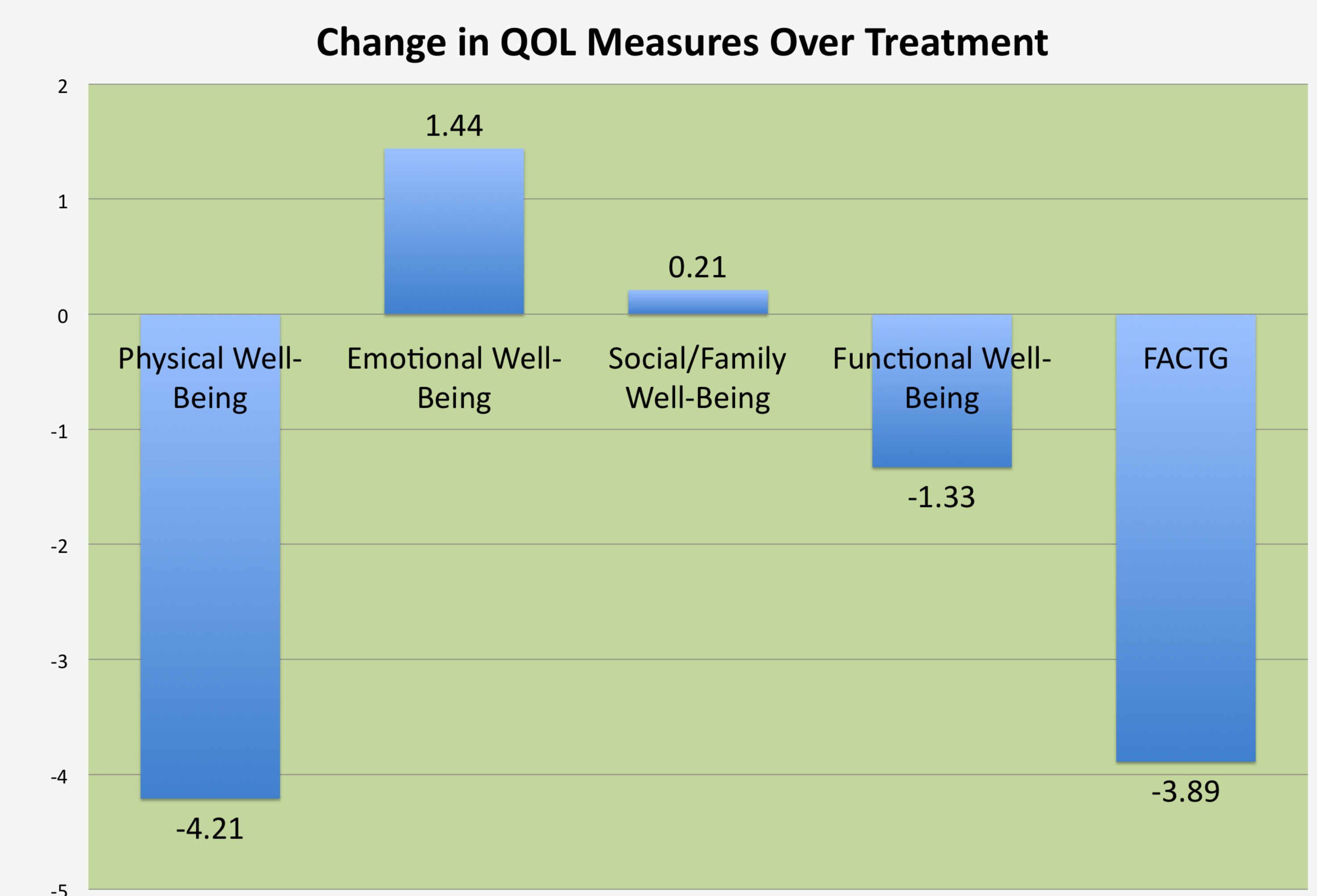


Background: Therapy for GI malignancies has long been known to have a marked impact on quality of life, yet this relationship remains poorly understood. The specific aim of this analysis was to evaluate changes in emotional well-being (EWB) and QOL in patients (pts) receiving radiation therapy (RT) for pancreatic and hepatobiliary malignancies in an NCI-designated cancer center.

Methods: A retrospective, IRB-approved chart review was performed of 722 patients 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. Responses to individual questions were on a numerical scale 0-4, corresponding to “not at all,” “a little bit,” “somewhat,” “quite a bit” and “very much” respectively. Pre- and immediately post-RT course scores were compared using student *t*-tests.

Results: 722 of 1369 (52.7%) patients participated in the Patient Related Outcome database. Complete pre and post RT spirituality data were available for 73 (64.6%) patients with GI malignancies, including 20 (27%) with pancreatic or hepatobiliary disease. Average age was 63.10, 12 (60%) were male and 12 (60%) received definitive treatment. A decrease in both functional and physical well-being was demonstrated in post-RT scores as compared to pre-RT. EWB, however, increased significantly (17.42 to 18.86, $p=0.032$), with 35% of patients reporting an increase in EWB within or above the minimally important difference reference range (2 to 3). Further analysis demonstrated this improvement was largely due to a decrease in positive response to the statements “I feel nervous” (1.30 to 0.70, $p=0.014$) and “I worry my condition will get worse” (1.60 to 1.20, $p=0.043$). Change in response to both of these items, as well as an increase in positive response to “I am satisfied with how I am coping with my illness” (2.70 to 3.05, $p=0.167$) were within or above the minimally important difference (MID) range. A decrease in positive response to “I feel sad” was also noted, but this difference was not statistically significant and was below the MID range.

Response to Individual Questions		
	Pre-Treatment	Post-Treatment
I feel sad	1.20	0.95
I am satisfied with how I am coping with my illness	2.70	3.05
I am losing hope in the fight against my illness	0.26	0.37
I feel nervous	1.30	0.70
I worry about dying	0.74	0.84
I worry that my condition will get worse	1.60	1.20



Conclusions: Emotional well-being of those receiving RT for pancreatic and hepatobiliary malignancies appears to improve over the course of therapy, even while other measures of QOL decline. Additional investigations in larger populations are warranted to further elucidate this relationship. Documentation of PROs may have potential for impact on QOL for patients with these and other malignancies.