



Impact of language barrier on the reporting and management of acute toxicities of radiotherapy in cervical cancer

Cristal Vieyra^{1, 2}, Daniel Seible M.D.¹, Reith Sarkar B.S.¹, James Murphy M.D., M.S.¹
 1) University of California, San Diego Moores Cancer Center, 2) San Diego State University

BACKGROUND

Emerging research shows that addressing symptoms early for cancer patients leads to improved quality of life and can even prolong survival. Limited English proficiency has been associated with poor patient comprehension of medication and treatment side effects. Therefore, when preferred language is a barrier between patients and their providers, symptom reporting and management can be compromised.

Patients undergoing radiation therapy for cervical cancer experience a variety of symptomatic toxicities. During treatment, weekly meetings with care providers serve as opportunities to examine how the treatment is affecting the patient, and to recommend symptom-directed medications when indicated.

We hypothesized that primarily Spanish-speaking cervical cancer patients would be at risk for missed or delayed symptom reporting and/or management during the course of treatment with radiotherapy.

SPECIFIC AIMS

1. Understand the relationship between patient language and reporting of symptoms during radiotherapy
2. Understand the relationship between patient language and management of symptoms during radiotherapy
3. Explore the influence of patient age on differences in the above endpoints

METHODS

Records of 136 English- and Spanish-speaking patients treated from 2009-2016 were analyzed. Demographic and clinical information was collected (Table 1) and patients were categorized by preferred language. Weekly on-treatment notes were analyzed and frequency and date of reported toxicities were recorded; as well as dates of medications recommended for symptom management. Most significant symptoms were gastrointestinal, genitourinary or pain-related. Statistical significance of associations were determined by T-tests, chi-squared tests, and multivariable linear regression.

RESULTS

| Demographic and clinical variables | English Speaking n = 100 | Spanish Speaking n = 36 |
|------------------------------------|-----------------------------|----------------------------|
| Age (median) | 47 | 51 |
| Ethnicity | | |
| Not Hispanic | 73(73) | 0(0) |
| Hispanic | 18(18) | 34(94) |
| Unknown | 9(9) | 2(6) |
| Race | | |
| White | 65(65) | 2(6) |
| African American | 9(9) | 0(0) |
| Hawaiian/Pacific Islander | 1(1) | 0(0) |
| Asian American | 10(10) | 0(0) |
| Other | 13(13) | 33(92) |
| Unknown | 2(2) | 1(6) |
| FIGO Stage | | |
| I | 45(45) | 17(47) |
| II | 30(30) | 9(25) |
| III | 23(23) | 7(19) |
| IV | 2(2) | 2(6) |
| Distance Travelled | | |
| ≤ 20 miles | 51(51) | 15(42) |
| ≥ 20 miles | 49(49) | 21(58) |
| Post-Operative | 16(16) | 8(22) |
| Concurrent Chemo | | |
| Cisplatin Cisplatin | 93(93) | 36(100) |
| +Gemcitabine | 70(75) | 30(83) |
| Other | 18(19) | 4(11) |
| Other | 5(5) | 2(6) |
| Brachytherapy Boost | 88(88) | 29(80) |
| Radiation Type | | |
| IMRT | 99 (99) | 35(97) |
| 3D/ IMRT | 1(1) | 0(0) |
| 3D | 0(0) | 1(3) |

Table 1: Demographic and Clinical Variables. IMRT = Intensity Modulated Radiation Therapy; 3D = Three-Dimensional Conformal Radiation Therapy. No statistically significant differences between above characteristics were found.

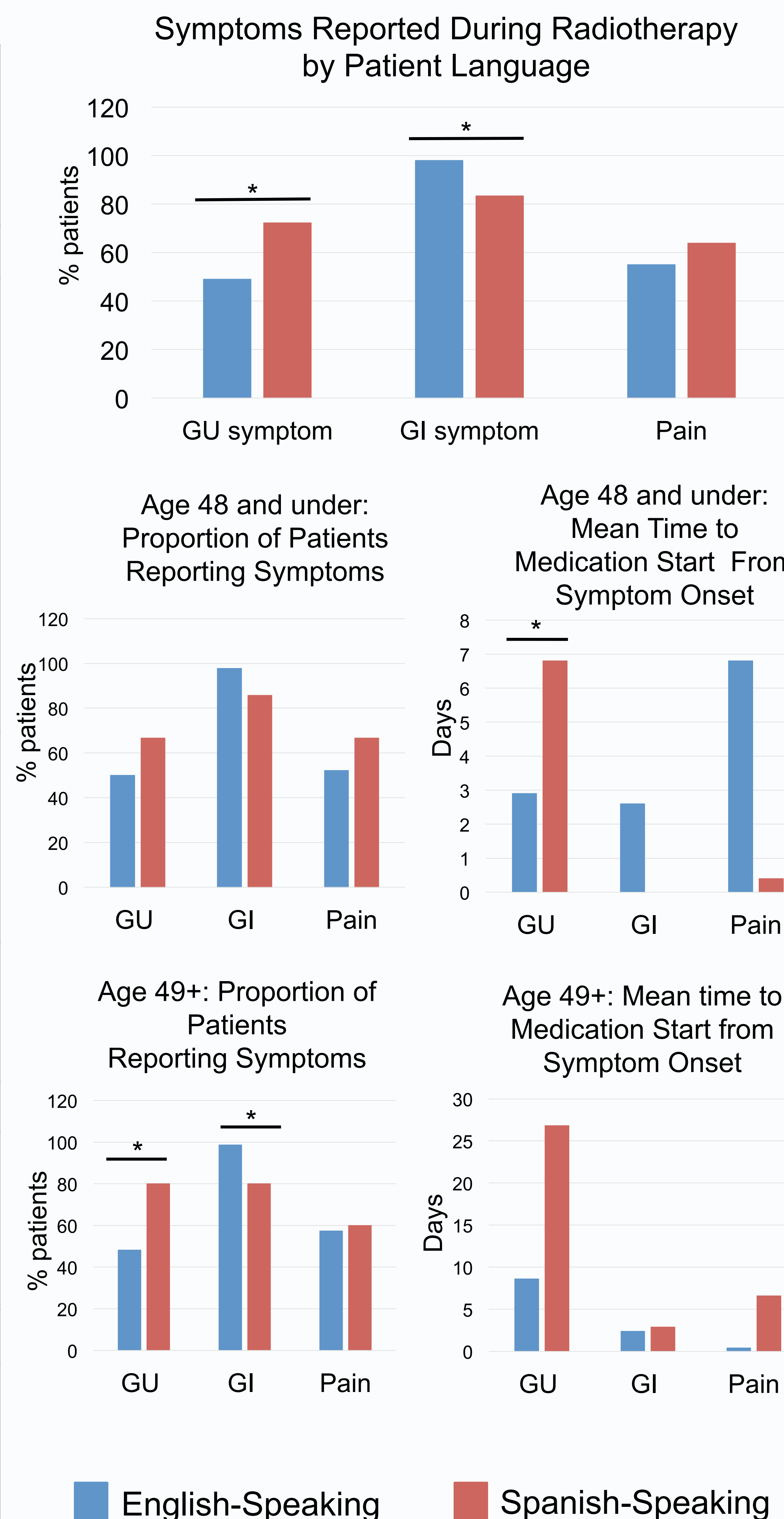


Figure 1: Symptom Reporting and Management by Preferred Patient Language. GU: Genitourinary, GI: Gastrointestinal. Statistical Significance (P<0.05) denoted by (*).

CONCLUSIONS

Overall, statistically significant differences between English- and Spanish-speaking patients were identified with respect to symptom reporting and management during radiotherapy for cervical cancer. Furthermore, this effect appears to be influenced by patient age.

Acute toxicities of radiotherapy would be expected to be similar between two groups of patients without detectable differences in disease stage or therapy rendered. However, our data suggests that Spanish-speaking women were more likely to report GU symptoms and less likely to report GI symptoms. Furthermore, despite frequent reporting of GU symptoms, GU symptom-directed medications were recommended later for symptomatic Spanish-speaking women compared to symptomatic English-speaking women.

Women undergoing radiotherapy for cervical cancer who are primarily Spanish-speaking may be at risk for under-reporting GI symptoms (particularly among older women), or being treated later for GU symptoms (particularly among younger women). These findings can help inform clinicians on how to best observe and address acute symptoms of radiotherapy in this at-risk population.

REFERENCES

Basch, E., Deal, A. M., Kris, M. G., Scher, H. I., Hudis, C. A., Sabbatini, P., ... & Chou, J. F. (2015). Symptom monitoring with patient-reported outcomes during routine cancer treatment: a randomized controlled trial. *Journal of Clinical Oncology*, 34(6), 557-565.

Temel, J. S., Greer, J. A., Muzikansky, A., Gallagher, E. R., Admane, S., Jackson, V. A., ... & Billings, J. A. (2010). Early palliative care for patients with metastatic non-small-cell lung cancer. *New England Journal of Medicine*, 363(8), 733-742.

Timmins, C. L. (2002). The impact of language barriers on the health care of Latinos in the United States: a review of the literature and guidelines for practice. *Journal of Midwifery & Women's Health*, 47(2), 80-96.

Research reported in this poster was supported by the National Cancer Institute of the National Institutes of Health under award numbers: U54CA132384 & U54CA132379