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Clinical Trials Participation and End of Life Outcomes in Patients with Ovarian Cancer

Abstract

Objectives: Many patients with advanced ovarian cancer seek investigational therapy. In non-gynecologic cancers, clinical trial participation has been associated with measures of aggressive care at the end of life (EOL). The objective of this investigation was to examine when patients with ovarian cancer participate in clinical trials and how this affects their EOL outcomes in a large tertiary center.

Methods: We conducted a retrospective review of all women diagnosed with ovarian cancer at our institution between 2010 and 2015. Clinical and demographic characteristics were abstracted, including variables identified by the National Quality Forum as measures of aggressive EOL care including chemotherapy in the last 14 days of life, intensive care unit (ICU) admission in the last 30 days of life, and death in the acute care setting. Data were analyzed with univariable and multivariable parametric and non-parametric testing, and survivals were calculated using the Kaplan-Meier method and cox-proportional hazard models.

Results: We identified 391 women treated for ovarian cancer, of which 62 patients (16%) participated in a clinical trial. Participation in a clinical trial was associated with a higher overall survival (logrank $p<0.001$). Among patients with recurrent ovarian cancer, median overall survival for clinical trial participants was 4.8 years compared to only 2.6 years in non-clinical trial participants ($p<0.001$). Patients enrolled in clinical trials were more likely to have chemotherapy administered within 14 days of death, however no association was found with other metrics of aggressive care at the end of life including a new chemotherapy line in the last 30 days of life, ICU admissions and death in an acute care setting.

Conclusions: Among patients with ovarian cancer, clinical trial enrollment is associated with improved overall survival in the tertiary care setting. While it is also associated with chemotherapy administration within 14 days of death, we found no associations between clinical trial participation and other measures of aggressive EOL care. Further study to understand drivers of patient selection will be crucial to understanding how clinical trial participation interacts with quality of care at the EOL.