

The association of marital status, socioeconomic status, and race on the survival of ovarian cancer patients.

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Objectives: To evaluate the influence of marital status, socioeconomic status, and race on the survival of ovarian cancer patients.

Methods: Data were obtained from the SEER database from 2010 to 2015. Analyses were performed with Kaplan–Meier and multivariate Cox proportional hazard models.

Results: Of 19,772 patients with ovarian cancer (median age: 60), 82.8%, 7.1%, 9.4%, and 0.7% were White, Black, Asian, and Native American, respectively. 54.5%, 21.7%, 11.5%, and 12.3% were married, single, divorced, and widowed. Married patients were older than single patients but younger than divorced and widowed patients (59 vs. 54 vs. 61 vs. 75 years;  $p < 0.001$ ). 55.5%, 30.7%, 64.1%, and 38.8% of White, Black, Asian, and Native American patients were married ( $p < 0.001$ ). 90.6% of married patients were insured compared to 71.8% single, 78% divorced, and 86.1% widowed ( $p < 0.001$ ). Patients who were married presented at earlier clinical stages (I-II) and lower tumor grades (I-II) compared to widowed and divorced patients ( $p < 0.001$ ). Married patients were more likely to receive chemotherapy compared to single, divorced, and widowed patients (79.1% vs. 71.3% vs. 76.7% vs. 67.6%;  $p < 0.001$ ).

The 5-year disease-specific survival (DSS) of the overall group was 60.1%. Married patients had similar DSS compared to single patients at 62.3% vs. 65.0%, but improved survival vs 53.7% divorced and 46.6% widowed ( $p < 0.001$ ). In multivariate analysis, patients with stage II-IV or grade III-IV disease, older age (HR: 1.002, 95% CI: 1.001 to 1.003,  $p < 0.01$ ), Medicaid (HR:1.16, 95% CI: 1.11-1.22  $p < 0.0001$ ) or no insurance (HR:1.20, 95% CI: 1.11-1.30,  $p < 0.0001$ ) had worse prognosis. Married patients had improved survival relative to widowed patients (widowed HR=1.08; 95% CI: 1.03-1.14;  $p < 0.01$ ). Race did not influence DSS when controlling for surgery, chemotherapy, and radiation.

Conclusions: Married patients were younger, had less advanced diseases relative to divorced and widowed patients, and were more likely to receive adjuvant chemotherapy compared to unmarried patients. Marital status is an independent predictor for survival relative to widowed status. DSS among races was not significant.