

UC Irvine

UC Irvine Previously Published Works

Title

Socioeconomic factors may contribute to the poor prognosis observed among women with advanced ovarian carcinoma treated with neoadjuvant chemotherapy

Permalink

<https://escholarship.org/uc/item/5dj3h2n7>

Journal

Gynecologic Oncology, 111(2)

ISSN

0090-8258

Authors

Chase, DM
Rincon, A
Deane, M
[et al.](#)

Publication Date

2008-11-01

DOI

10.1016/j.ygyno.2008.07.079

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Peer reviewed

16**Socioeconomic factors may contribute to the poor prognosis observed among women with advanced ovarian carcinoma treated with neoadjuvant chemotherapy**

D.M. Chase, A. Rincon, M. Deane, K.S. Tewari, W.R. Brewster
University of California, Irvine, Medical Center, Orange, CA, USA

Objectives. A significant proportion of women diagnosed with stage III or IV ovarian cancer are older with numerous comorbidities, large volume ascites and poor performance status. In these women, neoadjuvant chemotherapy (NAC) has been a

treatment option. Still debatable is whether these women have a survival and/or quality of life advantage. Furthermore, the criteria that direct physicians to consider this form of treatment are not well-defined. The objectives of this study are to define the patient characteristics that favor treatment with NAC and to compare the outcomes of NAC and standard ovarian cancer treatment.

Methods. Women with stage III or IV ovarian cancers treated between the years 1996–2007 were retrospectively reviewed. 55 cases of NAC were matched by date of diagnosis to 110 cases of adjuvant chemotherapy. Data was collected on patient demographics, clinical characteristics, and outcome. Only two tailed analyses with p values $< .05$ were considered statistically significant.

Results. The median age of the NAC patients was 63 versus 60 for the control group ($P=NS$). 45% of nonwhites received NAC in comparison to 27% of whites ($P=0.02$). 61% of whites had private insurance compared to 35% of nonwhites ($P=0.003$). At diagnosis the cases and the controls were similar with respect to initial Ca-125, size of mass on imaging, BMI, previous abdominal surgeries or comorbidities, and stage ($P=NS$). The NAC group had a larger amount of ascites on imaging ($P<0.05$). The NAC group received a median of 3 cycles of preoperative chemotherapy (range=1–9). The number of cycles of the first regimen of chemotherapy was equal between the 2 groups (6.5 v 7.4 cycles; $P=NS$). Mean Ca-125 after the first cycle of chemotherapy was 38.9 for the NAC group versus 30.8 for the control group ($P=NS$). At the time of operation the NAC group had less ascites (561 v 1786 cm³; $P=0.007$), a smaller tumor size at surgical entry (4 v 7 cm; $P=0.002$), shorter length of stay (5 v 8 d; $P=0.02$), lower median EBL (291 v 366 cm³; $P<0.0001$) and were more likely to be optimally debulked (82 v 63%; $P=.04$). The histologic cell types and incidence of bowel resections were similar between the 2 groups ($P=NS$). However the five year survival of the control group was superior to their NAC counterparts (47.4% v 21.3%; $P<0.001$). When stratified by age, the 5 year survival for Stage III patients was 18.9% for the NAC group versus 45% for the control group ($P<0.01$). This survival advantage remained even when the survival analyses were stratified by ethnicity ($P<0.05$).

Conclusions. NAC is associated with a greater likelihood of optimal cytoreduction and less surgical morbidity. However this treatment regimen is not associated with equivalent survival. Further nonwhite women may be more likely to receive NAC. The social factors that predispose to this selection and possibly to a poor treatment outcome should be further clarified as we have seen that a significant amount of publically-funded women are more likely to receive NAC.