UC Irvine
UC Irvine Previously Published Works

Title
Hormone replacement therapy (HRT) is associated with improved survival among young women with epithelial ovarian carcinoma (EOC)

Permalink
https://escholarship.org/uc/item/40j858jn

Journal
Gynecologic Oncology, 111(2)

ISSN
0090-8258

Authors
Chase, DM
Kang, S
Huang, Y
et al.

Publication Date
2008-11-01

DOI
10.1016/j.ygyno.2008.07.095

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

Peer reviewed

eScholarship.org Powered by the California Digital Library
University of California

27

Hormone replacement therapy (HRT) is associated with improved survival among young women with epithelial ovarian carcinoma (EOC)

D.M. Chase, S. Kang, Y. Huang, K.S. Tewari
University of California, Irvine-Medical Center, Irvine, CA, USA

Background. With the median age of EOC being 63 years, only 20% of cases occur among women of reproductive age. Younger age at diagnosis has previously been shown to have prognostic significance. We sought to further elucidate those factors that contribute to improved survival among young women with EOC.

Methods. Women ≤45 yrs were identified from the Tumor Registry. In addition to demographic and clinico-pathologic factors, data on HRT (formulation, dose, schedule and duration of treatment) were collected. Kaplan–Meier life table analysis was used to generate survival curves which were then tested for significance using the Logrank analysis. The multiple Cox proportional hazards regression survival model was then used for multivariate analysis.

Results. 74 cases of EOC were identified between 1996 and 2007. The median age was 38 yrs (range 20–45 yrs). 47% were Caucasian, 28% Asian, and 11% Hispanic. The stage distribution included 22% (I), 11% (II), 39% (III), 9% (IV), and 1% (unstaged). 5YS for stage I, II and III were 93%, 83% and 63% respectively. Stage was an independent prognostic factor of PFS and OS ($p<0.05$). 75% of the stage III /IV patients were NED/AWD at a median follow-up of 34 mos. 27% of the entire cohort had undergone fertility-preserving surgery (FPS). In univariate and multivariate analysis, age <35, ethnicity, family history, cell-type and FPS did not impact PFS or OS. In both univariate and multivariate analyses, HRT use was associated with improved PFS and OS ($p<0.05$). 37% of the patient population used HRT during the study period, and 19% of these underwent FPS. Patients using HRT had a median age at diagnosis of 40 yrs (range 21–45 yrs). 70% used estrogen alone and 30% received combined E+P. The median duration of use was 59 mos (range 2–180 mos).

Conclusions. Historically, younger age has been associated with improved prognosis in EOC. In this study, the enhanced 5YS of 63% for stage III disease is remarkable and suggests that tumor biology or perhaps exogenous factors may directly or indirectly influence response rates to systemic therapy when EOC manifests during the reproductive years. Molecular studies may uncover unique biologic features. Additionally, HRT use may be a surrogate for improved quality of life that imparts prognostic significance in young women with EOC.

doi:10.1016/j.ygyno.2008.07.095