

Hormone replacement therapy utilization over time following risk-reducing salpingo-oophorectomy in premenopausal patients at high risk for ovarian cancer

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Topic: Genetics

Objectives

Bilateral salpingo-oophorectomy (BSO) is recommended to reduce the risk of ovarian cancer in patients with high-risk germline mutations, but the resultant surgical menopause can lead to detrimental health effects and impact quality of life. Hormone replacement therapy (HRT) can help mitigate these effects, but HRT use after BSO is often not prescribed or utilized due to a variety of factors. Our goal was to examine HRT use after BSO in our institution and to assess personal and systemic barriers to recommended hormone replacement.

Methods

This is a retrospective cohort study of patients identified in our institutional registries who have a high-risk germline mutation, underwent risk-reducing BSO prior to age 50, and were premenopausal. Those with a history of breast cancer prior to surgery were excluded. Medical records were reviewed to determine HRT use at one and three years after BSO, along with clinical and demographic data. Qualitative interviews will be performed of a random sampling of patients regarding barriers to HRT use (results pending).

Results

188 patients met inclusion criteria with surgeries between 1992-2020. Median age was 40 (range 27 – 49). Most patients carried germline mutations in BRCA1 (n=111, 59%) and BRCA2 (n=62, 33%), with others carrying mutations in BRIP1, PALB2, MLH1, MSH2, MSH6, and PMS2. Most patients had a hysterectomy (n=152, 81%) concurrent with BSO. One year after BSO, 86.3% (145/168) of patients were using HRT. HRT use decreased to 77.2% (122/158) at three years after surgery, with thirteen patients stopping HRT use in that intervening time (four after a diagnosis of breast cancer and three after provider recommendation despite age less than fifty). HRT use at 1 and 3 years after BSO increased over time (66% and 50% respectively if surgery occurred before year 2000 vs. 90% and 83% if surgery occurred between 2010-2020, $p=0.017$). Patients not taking HRT three years after BSO tended to be older (mean age 42.5 vs. 39.5, $p<0.001$).

Conclusions

We showed high rates of HRT use postoperatively after BSO with rates increasing over time. Older age at time of BSO was associated with lower HRT utilization. Some patients stopped HRT based on provider recommendation, indicating a need for provider and patient education regarding risks and benefits of HRT after surgical menopause.