This slide show includes highlights from the 2014 Society of Gynecologic Oncology annual meeting, including one study showing bariatric surgery could lower the risk of uterine cancer, and another that found a PARP inhibitor active in BRCA-positive ovarian cancer.
Conclusions

- Women with *BRCA1* mutations may have an increased incidence of high risk uterine cancer following RRSO approaching 2.1% over 10 years (97.5% CI lower bound 0.6%)

- These data do not allow us to comment on the risk of corpus cancer in women with *BRCA2* mutations

- Given the study limitations, these data should be considered preliminary and require confirmation before any change in clinical recommendations can be made

Slide 2: Women Harboring BRCA1 Mutation May Be at Risk of Developing Uterine Corpus Cancer Despite Oophorectomy. Image Source: Catherine Shu, MD, Department of Medical Oncology Memorial Sloan-Kettering Cancer Center, New York, New York.

Results/Conclusions

<table>
<thead>
<tr>
<th>Cancer Site</th>
<th>Highest-Quartile Volume Facility</th>
<th>2nd Highest-Quartile Volume Facility</th>
<th>2nd Lowest-Quartile Volume Facility</th>
<th>Lowest-Quartile Volume Facility</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cervix</td>
<td>117.8</td>
<td>114.1</td>
<td>111.5</td>
<td>102.4</td>
<td>p=0.0005</td>
</tr>
<tr>
<td>Ovary</td>
<td>49.4</td>
<td>45.4</td>
<td>42.7</td>
<td>32.5</td>
<td>p=0.0005</td>
</tr>
<tr>
<td>Uterus</td>
<td>159.7</td>
<td>157.9</td>
<td>156.0</td>
<td>156.2</td>
<td>p=0.574</td>
</tr>
<tr>
<td>Vagina</td>
<td>72.2</td>
<td>69.8</td>
<td>60.7</td>
<td>38.1</td>
<td>p=0.0005</td>
</tr>
<tr>
<td>Vulva</td>
<td>136.4</td>
<td>125.6</td>
<td>130.4</td>
<td>134.1</td>
<td>p=0.0005</td>
</tr>
</tbody>
</table>

- Controlling for age, comorbidities, site of disease, stage and grade, treatment at lowest-quartile volume centers confers a 11.1% greater risk of death*

- Conclusions:
  - Regionalization of care is already ongoing
  - Elderly and advanced-stage patients are more likely to be treated at low-volume centers
  - Treatment at high-volume centers is associated with improved outcomes even when controlled for age, stage, and comorbidities
  - These data support regionalization of gynecologic cancer care and identify patients who may benefit from transfer to high-volume centers.

* compared to highest-quartile volume centers

Slide 3: Women With Gynecologic Cancers May Live Longer if Treated at High-Volume Medical Centers. Image Source: Jeff F. Lin, MD, Magee-Womens Hospital of the University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania.
Slide 4: PARP Inhibitor Veliparib Active in BRCA1 or BRCA2 Germline Patients With Recurrent Ovarian Cancer. Image Source: Robert L. Coleman, MD, The University of Texas MD Anderson Cancer Center, Houston, Texas.

Slide 5: Adjuvant Brachytherapy Plus Chemotherapy Not Superior to Pelvic Radiation for Women With High-Risk Endometrial Cancer. Image Source: Scott McMeekin, MD, Peggy and Charles Stephenson Cancer Center, University of Oklahoma, Oklahoma, Nebraska.
Slide 1: Bariatric Surgery Could Lower Risk of Uterine Cancer in Women

Those women who had bariatric surgery for weight loss reduced their risk of uterine cancer by about 70%. According to the authors, the results suggest that obesity is a risk factor related to the development of endometrial cancers that can be modified. Approximately 39% of endometrial cancer cases are attributed to obesity. The retrospective analyzed more than 100,000 hospital admission records of women who had undergone bariatric surgery. Over 44,000 of them had a uterine malignancy diagnosis. Women who kept the weight off lowered their risk by 81%, and those who had a higher than normal BMI even after surgery had a 52% risk reduction.[1]

Slide 2: Women Harboring BRCA1 Mutation May Be at Risk of Developing Uterine Corpus Cancer Despite Oophorectomy

An analysis of 525 women with BRCA1 or BRCA2 mutations who underwent a risk-reducing salpingo-oophorectomy (RRSO)—removal of ovaries and fallopian tubes—shows that these women still had an increased risk for developing rare types of aggressive uterine cancer. The study suggests that women with a BRCA1 mutation have a 2.1% risk of developing aggressive uterine cancer within 10 years following RRSO, a 26-fold increased risk. Four of the 296 women with a BRCA1 mutation who did not have their uterus removed later developed an aggressive uterine cancer. While the absolute risk is still low, it is higher than expected, according to the study authors.[2]

Slide 3: Women With Gynecologic Cancers May Live Longer if Treated at High-Volume Medical Centers

According to a study of more than 850,000 women with gynecologic cancers, those who were treated at high-volume medical centers lived about a year longer than those cared for at low-volume centers. The highest quartile, high-volume centers were most likely to be academic centers. Patients
over the age of 71 were more likely to be treated at lower-volume centers.[3]

**Slide 4: PARP Inhibitor Veliparib Active in BRCA1 or BRCA2 Germline Patients With Recurrent Ovarian Cancer**

A 52-patient phase II trial shows that the PARP inhibitor veliparib is active in patients with recurrent or persistent epithelial ovarian, primary peritoneal, or fallopian tube cancer who have either a BRCA1 or BRCA2 germline mutation. The confirmed response rate was 26% with 2 complete responses and 11 partial responses. The median progression-free survival was 8.11 months. Women on the trial had both platinum-sensitive and resistant disease and had one to three prior therapies.[4]

**Slide 5: Adjuvant Brachytherapy Plus Chemotherapy Not Superior to Pelvic Radiation for Women With High-Risk Endometrial Cancer**

The randomized, phase III GOG249 trial of 601 women with high-risk early-stage endometrial cancer shows that vaginal cuff brachytherapy followed by 3 cycles of paclitaxel/carboplatin chemotherapy was not superior to pelvic radiation therapy. In an exploratory subset analysis, no patient subpopulation benefited more from one or the other therapeutic approach. The 24-month survival was 93% in the pelvic radiation arm compared with 92% for the brachytherapy plus chemotherapy arm (hazard ratio [HR] = 1.28). Most patients did well with either therapy and analyses to identify clinical, pathological, and molecular factors of high risk are underway.[5]

**Slide 6: A Nutritional Screening Index Could Be Useful as Prognostic Factor for Survival in Ovarian Cancer**

A relatively simple tool to assess nutritional status called the Nutritional Risk Index (NRI) could be helpful to assess the nutritional status of advanced epithelial ovarian cancer patients during their chemotherapy. A retrospective analysis of 212 patients showed that NRI was significantly associated with patient survival. Moderately to severely malnourished patients prior to chemotherapy had a lower overall survival compared with normal to mildly malnourished patients (48 months vs 80 months, respectively, \( P = .014 \)).[6]

**References:**


2014; Abstr 25.

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