Update in Gynecologic Oncology Nursing

ONS Institutes of Learning
November, 2004

Gynecologic oncology includes:

- Cancers of the
  - endometrium (uterus)
  - ovary
  - cervix
  - fallopian tube*
  - vagina and vulva*
  - products of conception*

*Not included in this presentation

Anatomy of the Female Genital Tract

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2004 Estimated New Cancer Cases: 10 leading sites by sex in the U.S.*

Melanoma of Skin 4%
Breast 32%
Lung-bronchus 32%
Pancreas 12%
Colon & Rectum 11%
Prostate 11%
Urinary 8%
Kidney & Renal Pelvis 6%
Leukemia 5%
All Other 4%

* excludes basal and squamous cell skin cancers and carcinoma in situ except bladder

Update in Endometrial Cancer

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Gynecologic Oncology Associates
Newport Beach, CA

Leading cancer sites in U.S. women in 2004

<table>
<thead>
<tr>
<th>Site</th>
<th>Est. New Cases in 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>215,990</td>
</tr>
<tr>
<td>Lung-bronchus</td>
<td>80,660</td>
</tr>
<tr>
<td>Colon-rectum</td>
<td>73,320</td>
</tr>
<tr>
<td>Endometrium</td>
<td>40,320</td>
</tr>
<tr>
<td>Ovary</td>
<td>25,580</td>
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</table>

Incidence of Endometrial Cancer
- It is the most common gynecologic cancer
- It is estimated that there will be 40,320 new diagnoses in 2004 with 7,090 deaths
- It is the most curable gynecologic cancer as 75% are diagnosed with Stage 1 disease

ACS, 2004

Risk Factors in Endometrial Cancer
- The most predominant risk factor is unopposed estrogen (estrogen alone without impact of progesterone)
- The estrogen lining is very sensitive to hormonal manipulation and unopposed estrogen will cause the lining of the endometrium to thicken

Risk Factors in Endometrial Cancer
- Obesity greater than 20 pounds overweight can account for 25% of cases
- Conversions of exogenous estrogen in adipose tissue which further stimulates the endometrial lining
- Anovulatory or infertile women due to lack of progestin to slough off endometrial lining

Risk Factors in Endometrial Cancer
- Women with polycystic ovary disease
- Stein-Leventhal Syndrome (anovulatory menstrual cycles)
- History of breast/ovarian cancer
- Use of tamoxifen as has estrogen effect on endometrial lining though an antiestrogen effect on breast tissue

Comorbidities in Endometrial Cancer
- Women with diseases of diabetes and or hypertension have up to a 3-10 fold increased risk of developing endometrial cancer
- Women with early menarche and late menopause particularly after the age of 52
Role of Endometrial Hyperplasia and Endometrial Cancer

- Endometrial hyperplasia is a precursor to development of cancer within the endometrium.
- Complex atypical hyperplasia will convert to endometrial cancer in approximately 30% of patients.
- Close observation with serial endometrial biopsies/D&C.

Protective Factors in Endometrial Cancer

- Oral contraceptives
- Smoking induces protective effect as most women who smoke enter menopause earlier and it is thought that smoking causes alteration in the effect of estrogen on the lining of the uterus. Risk outweighs any benefit.

Symptoms of Endometrial Cancer

- Most common symptom is abnormal uterine bleeding or postmenopausal bleeding.
- Women under the age of 60 who have persistent abnormal uterine bleeding must be evaluated (Lynch Syndrome).
- A sample of the endometrial lining by biopsy is easily done as outpatient.

Diagnosis of Endometrial Cancer

- Most endometrial cancers are diagnosed by endometrial biopsy or D&C.
- If an endometrial biopsy is negative then a D&C must be performed.
- If a patient has endometrial cancer on biopsy, a sampling of the cervix is mandated.

Role of Ultrasound in Endometrial Cancer

- A transvaginal ultrasound can be performed to assess the thickness of the lining of the endometrium to determine treatment plan.
- Some endometrial polyps and fibroids can contain cancer and a full staging must be performed.

Role of Gynecologic Oncologist in Endometrial Cancer

- Why is the Gyn Oncologist important?
- In 1988, there were 2900 deaths now over 7000. Is it the disease or has treatment been altered?
- Many women are not being referred as they are thought to have early disease, but have high risk factors on pathology.
Staging of Endometrial Cancer

- Staging is done surgically with a TAHBSO, lymphadenectomy, washings
- It is important to note that several studies have identified women thought to have stage 1 disease who upon restaging had upgrading of disease.
- Gynecologic oncologists should be involved in the care of these women

Treatment of Endometrial Cancer

- Appropriate surgical staging for all patients diagnosed with endometrial cancer
- Adjuvant treatment such as radiation therapy and or chemotherapy is dependent on grade of tumor, depth of myometrial invasion, and histology

Histology in Endometrial Cancer

- Most common cell type on diagnosis is the adenocarcinoma.
- Poor risk subtypes include papillary serous, clear cell, undifferentiated, sarcoma. These cell types result in less than 33% survival no matter what stage or grade
Radiation Therapy in Endometrial Cancer

- As in cervical cancer, women are candidates for adjuvant external beam therapy and or vaginal brachytherapy in high risk pathology.
- Several studies have indicated no increased survival in comparison to whole abdomen vs whole pelvis with many more complications associated with WAR.

Role of Hormonal Therapy in Endometrial Cancer

- Megace has been reported to have response in over 30% of patients who are not surgical candidates.
- Megace has also been utilized in young women with atypical hyperplasia who still desire children.

Chemotherapy in Endometrial Cancer

- Chemotherapy has traditionally been utilized in high risk disease types such as papillary serous and in advanced disease.
- Most are treated similar to ovarian cancer with the use of paclitaxel and a platinum drug.

Chemotherapy in Endometrial Cancer

- Results from GOG 177 showed longer progression free survival in patients receiving adriamycin, cytoxan, and paclitaxel.
- Results from GOG 122 showed increased survival for women receiving AC in comparison to whole abdomen.

Psychosocial Issues in Women with Endometrial Cancer

- Nurses must address needs of a primarily more elderly population.
- These women usually also have increased incidence with complications such as wound healing and postoperative deep vein thrombosis.

“I had a Stage III uterine cancer 7 years ago and I know I am alive today due to prayer, chemotherapy, and most importantly by a special doctor and nurse who know the special field of women’s cancers.”

AKE, 82 years, 2004
Update on Cervical Cancer

Suzy Lockwood-Rayermann, PhD RN
Texas Christian University
Fort Worth, TX

Why men shouldn’t take messages!

“Someone from the Gyna Colleges called. They said the Pabst Beer is fine.”
I didn’t think you liked beer?!?!!

Incidence of Cervical Cancer

- #1 gynecologic cancer in the world
- #3 gynecologic cancer in the United States
- 10th most common overall for females
- Estimated 10,520 new diagnoses of invasive cervical cancer in 2004 with 3,900 deaths
- It is one of the most successfully treatable cancers

Healthy People 2010

3-4. Reduce the death rate from cancer of the uterine cervix.
Target: 2.0 deaths/100,000 females
Baseline: 3.0 deaths (1998)

3-11. Increase the proportion of women who receive a Pap test.
Target: 79% age 18+ pap in last 3 yrs
Baseline: 90% age 18+ pap in last 3 yrs

Cervical Cancer Risk Factors

- Sexual behavior/activity
- HPV ****
- Cigarette smoking
- Obesity
- Immunosuppression
- Failure to participate in screening
New Screening Guidelines for Cervical Cancer (2002)

- Three (3) years after initiating vaginal intercourse, no later than 21 years of age
- Conducted annually with standard Pap Smear
- Conducted every two years with liquid based Pap tests
- After 30 years of age, if 3 normal can have every 2-3 years
- After 70 years of age, 3 normal tests & no abnormals in 10 years, can stop having

Cervical Cancer Survival

- Extent of disease at diagnosis directly related to prognosis
- Preinvasive = 100%
- 71% survive 5 years (All stages)
- Early detection & treatment of invasive cervical cancer = 92% 5 yr survival rate
- Whites are more likely to be diagnosed at early stage -> survival

Symptoms of Cervical Cancer

- Most common symptom is abnormal vaginal bleeding
- Increased vaginal discharge
- None until abnormal cells become cancerous and invade

Diagnosis of Cervical Cancer

- Most cervical cancers are diagnosed by Pap smear
  - Traditional
  - Liquid Cytology
- Hybrid Capture II HPV test in combination with Pap (March 2003)

Diagnosis of Cervical Cancer

- American Cytopathologists Society recommendations
- Pelvic Exam
- Colposcopy
- Endocervical curettage (ECC)

Interventions for HSIL

- Cryotherapy
- Laser
- LEEP
- Cone Knife Conization (CKC)
- Hysterectomy
**Histology in Cervical Cancer**
- Controversy regarding which type carries worse prognosis
- Adenocarcinoma 10% of cases
- Squamous 90% of cases
- Rare types include:
  - Adenosquamous
  - Small cell
  - Primary sarcomas
  - Malignant lymphomas

**Pap Tests & the Bethesda System**
- System for interpreting Pap test results
- Revised in 2001
- No Cell abnormalities
- Cell abnormalities

**Pap test results**

<table>
<thead>
<tr>
<th>Abrev</th>
<th>Treatment may include</th>
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<tbody>
<tr>
<td>ASC-US</td>
<td>Pap testing; rpt Pap; Colposcopy; Biopsy</td>
</tr>
<tr>
<td>ASC-H</td>
<td>Colposcopy; Biopsy</td>
</tr>
<tr>
<td>AGC</td>
<td>Colposcopy; Biopsy; ECC</td>
</tr>
<tr>
<td>AIS</td>
<td>Colposcopy; Biopsy; ECC</td>
</tr>
<tr>
<td>LSIL</td>
<td>Colposcopy; Biopsy</td>
</tr>
<tr>
<td>HSIL</td>
<td>Colposcopy; Biopsy; EEC;LEEP; Cry; Laser; CKC; Hysterectomy</td>
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**Staging in Cervical Cancer**
- Appropriate staging for all patients
- Gynecologic oncologists must be involved
- Staged clinically
  - Rectovaginal exam
  - Radiological testing
- FIGO Staging
- Sentinel Nodes ??????
- Role of Surgery in staging

**FIGO Staging**
- Stage I – strictly to cervix
- Stage II – beyond cervix but not into pelvic wall
- Stage III – onto pelvic wall
- Stage IV – beyond true pelvis

**Treatment of Cervical Cancer**
- Dependent on stage
- Age & fertility concerns
- Radical trachelectomy
- Radical hysterectomy & pelvic lymphadenectomy
- Radiation
- Chemotherapy
<table>
<thead>
<tr>
<th>Stage I</th>
<th>Stage II</th>
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<tbody>
<tr>
<td>Total Hysterectomy</td>
<td>Radical Hysterectomy &amp; Bilateral pelvic lymphadenectomy</td>
</tr>
<tr>
<td>Conization</td>
<td>External &amp; Internal radiation</td>
</tr>
<tr>
<td>Radical Hysterectomy</td>
<td>Chemoradiation</td>
</tr>
<tr>
<td>Intracavitary radiation alone (IA)</td>
<td></td>
</tr>
<tr>
<td>External &amp; Internal radiation (IB)</td>
<td></td>
</tr>
<tr>
<td>Bilateral pelvic lymphadenectomy (IB)</td>
<td></td>
</tr>
<tr>
<td>Chemoradiation (IB)</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Stage III &amp; IV</th>
<th>Radiation Therapy in Cervical Cancer</th>
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</thead>
<tbody>
<tr>
<td>Radical Hysterectomy &amp; Bilateral pelvic lymphadenectomy</td>
<td>Primary treatment for cervical cancer</td>
</tr>
<tr>
<td>External &amp; Internal radiation</td>
<td>External beam</td>
</tr>
<tr>
<td>Chemotherapy</td>
<td>Vaginal brachytherapy</td>
</tr>
<tr>
<td></td>
<td>– High-dose rate (HDR)</td>
</tr>
<tr>
<td></td>
<td>– Low-dose rate (LDR)</td>
</tr>
<tr>
<td></td>
<td>Chemoradiation</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Chemotherapy in Cervical Cancer</th>
<th>Recurrent Cervical Cancer</th>
</tr>
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<tbody>
<tr>
<td>Primary treatment for Stage IV &amp; recurrent cervical cancer</td>
<td>Combination chemotherapy</td>
</tr>
<tr>
<td>Neoadjuvant</td>
<td>Surgery</td>
</tr>
<tr>
<td>Combination</td>
<td>– Posterior exenteration</td>
</tr>
</tbody>
</table>

 | | – Anterior exenteration |
| | – Total |
Symptom Management
- Bladder dysfunction
- Bleeding
- Deep vein thrombosis/PE
- Pain
- Lymphedema
- Diarrhea
- Bowel obstructions
- Fistulas

Psychosocial Issues in Women with Cervical Cancer
- Sexual sequelae
- Nurses must address needs individually
- Socio-economic issues
- “The stigma”

Current Trials
- Phase II Study of Paclitaxel & Cisplatin vs. Vinorelbine & Cisplatin vs. Gemcitabine & Cisplatin vs. Topotecan & Cisplatin for patients with Stage IVB, Recurrent or Persistence Cervical Cancer (GOG-0204)
- Phase III Cisplatin-based chemotherapy followed by radical hysterectomy compared with radiation therapy plus chemotherapy in treating patients with Stage IB or Stage IIA or B Cervical Cancer (EORTC-55994)

Current Trials
- Phase I/II Study of Docetaxel & Carboplatinum with recurrent stage IVB squamous cervical cancer (NCI-6949)
- Phase I/II Study of extended field radiotherapy with concurrent Paclitaxel & Cisplatin chemotherapy in patients with previously untreated cervical cancer metastatic to para-aortic lymph nodes (GOG-9804)
- Phase I/II Study of radiotherapy combined with Paclitaxel & Cisplatin in patients with Stage IB2, IIA, IIB, or IVA invasive cervical cancer (GOG-9803)

HPV Vaccine?
What is the latest information?
What are the recommendations?

Update in Ovarian Cancer
Susan Vogt Temple, RN, MSN, AOCN
GlaxoSmithKline Oncology
**Ovarian Cancer in the U.S.**

- 2004 statistics: 25,580 (est) new cases; 16,090 (est) deaths
- Incidence = 1 in 58 - 70 women
- 5th-leading cause of cancer death in women
- Median age at diagnosis: 63 years
- ~ 70% of cases diagnosed at Stage III/IV

**Risk Factors**

- **Increased risk**
  - Advanced age
  - Personal history of breast or colon cancer
  - Family history
  - Ethnic/religious background
  - Nulliparity/infertility
  - Diet and obesity
  - Estrogen replacement (?)

- **Decreased risk**
  - Prolonged breast-feeding
  - Long-term oral contraceptives
  - Pregnancy/multiparity
  - Bilateral salpingo-oophorectomy
  - Tubal ligation

**Hereditary Ovarian Cancer**

- Accounts for 5 to 10% of cases
- Site specific Ovarian Cancer Syndrome
- Hereditary Breast/Ovarian Cancer Syndrome
  - BRCA1 and BRCA2 mutations
  - Chromosomes 17 & 13
  - Increases risk as much as 50% from general population
- HNPPC (Lynch II Syndrome)

- NCCN Practice Guidelines; ASCO Guidelines, adopted 2003
- Evaluation by geneticists
- Careful maintenance of medical records
- Including detailed family and medical/surgical history
- Focused physical exam
- Careful counseling/management

**Ovarian Cancer Screening**

- No sensitive and specific test available
- Assessment of patient's familial, personal, and reproductive history
- Patients at high risk are candidates for:
  - Bimanual pelvic examination, transvaginal ultrasonography, CA-125
  - No international consensus; need for multimodality approach in prospective clinical trial

**CA 125**

- Elevated (>35 U/mL) in 80% of all ovarian cancer cases
- Elevated in only 25% to 50% of Stage I cases
- Low specificity
- Most useful in follow up
  - Frequency: ~ every 3 to 4 months
  - Rising levels indicative of progressive disease in patients with elevated levels at diagnosis
**Ovarian Cancer: Symptoms**

- 95% of women report symptoms
- Symptoms can be vague and not necessarily gynecologic
  - Abdominal bloating, increased girth
  - Fatigue
  - Weight loss
  - Gastrointestinal disturbances
  - Urinary symptoms
  - Abdominal/pelvic pain
  - Menstrual irregularities/vaginal bleeding

**Ovarian Cancer: Stage Distribution and Survival**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Percent</th>
<th>Survival (5 Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>23</td>
<td>≥ 90%</td>
</tr>
<tr>
<td>II</td>
<td>13</td>
<td>70%</td>
</tr>
<tr>
<td>III</td>
<td>47</td>
<td>30–40%</td>
</tr>
<tr>
<td>IV</td>
<td>16</td>
<td>0–28%</td>
</tr>
<tr>
<td>Overall</td>
<td>50%</td>
<td></td>
</tr>
</tbody>
</table>


**Clinical Evaluation**

- History and physical examination
- CT of the abdomen and pelvis
- In other selected cases: a barium enema, colonoscopy or other radiographic studies
- CA-125, routine labs, chest x-ray preoperatively

**Prognosis**

- Stage of disease
- Residual disease status
- Tumor differentiation/histology
- Peritoneal cytology & extracapsular spread in early stage disease

**Surgery**

- Best outcomes achieved with surgical staging with optimal cytoreduction/debulking - dependent upon
  - comorbid conditions
  - disease status
  - surgery performed by a gynecologic oncologist

- Optimal surgical staging/debulking via exploratory laparotomy
  - Tumor debulking <1.0 cm
  - TAH/BSO/LNS
  - Omentectomy
  - Peritoneal washings/scrapings
  - Multiple random biopsies


Treatment

- Surgery
  - Curative in early stage disease
- Radiation therapy - limited application
- Chemotherapy
  - Initial treatment: taxane and platinum-based therapy
- Hormone therapy

Management of Ovarian Cancer: First-Line Chemotherapy

- Cisplatin + Paclitaxel
  - Established as "gold standard"
  - 73% response rate, 38-month median survival
- Carboplatin vs Cisplatin
  - Initial RR of 70% to 80% with platinum-based regimens
  - Optimal debulking (<1 cm) 50% pathologic CR
  - Suboptimal debulking (>1 cm) 20% to 35% pathologic CR

Ovarian Cancer: Recurrence

- 60% to 85% of patients with advanced disease relapse
- Treatment options include
  - Retreatment
  - Other second-line chemotherapies
  - Secondary cytoreduction in selected patients
  - Encourage clinical trials
  - Palliative radiation

Outcomes of Therapy in Relapsed Ovarian Cancer

- Complete responses are rare
- Treatment-free intervals decrease
- Tolerability to chemotherapy may decrease with subsequent therapy

Drug Classifications of Agents with Known Activity for Recurrent Ovarian Cancer

- Alkylating agents including platinums
- Mitotic spindle poisons
- Topoisomerase I and II inhibitors
- Anthracyclines
- Antimetabolites
- Other agents including hormonal therapies, monoclonal antibodies, and vaccine therapies

Factors to Consider when Choosing Options in Treating Relapsed Ovarian Patients

- Survival:
  - Durable PR, SD, or Progression-Free Interval
- Quality of Life:
  - Does not exacerbate any existing toxicities
  - Can be used for an extended interval without fear of cumulative toxicities
  - Does not limit future drug options
**Controversial Topics**

- Second look laparotomies
- Secondary debulking
- Radiation therapy - *limited application*
- Intraperitoneal chemotherapy
- High-dose therapy
