

Gynecologic Cancer Program

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The Section of Gynecologic Oncology is devoted to the care of women with malignancies of the reproductive tract. A multidisciplinary approach combining surgery, radiation therapy and chemotherapy is emphasized in treating women with cancers of the ovary, uterus, cervix, vulva, vagina, and fallopian tube. We also provide care for patients with gestational trophoblastic neoplasia as well as preinvasive disease of the cervix, vulva, and vagina. Section members perform a wide range of surgical procedures to manage gynecologic malignancies including pelvic exenteration, radical hysterectomy, and radical tumor debulking. In collaboration with members from colorectal surgery, urology, and plastic surgery, we offer advanced reconstructive techniques to women undergoing extensive pelvic surgery with the goal of minimizing changes in physical appearance and maximizing quality of life. Minimally invasive surgery using laparoscopic techniques are being employed in the management of women who are at high risk of developing ovarian and fallopian tube cancers and are being investigated in the staging of gynecologic malignancies. We have developed a prospective database to collect treatment and outcome information of patients with a gynecologic cancer seen at FCCC to improve care for these women. M. Edelson and C. Bergman actively participate in the Gynecologic Oncology Group (GOG), a cooperative international study group providing clinical trials for women with gynecologic malignancies.



We are active participants in the Specialized Program of Research Excellence (SPORE) in ovarian cancer at FCCC. In collaboration with P. Cairns[§] samples of ovarian tissue and peritoneal fluid are obtained to identify novel molecular markers for early detection of ovarian cancer and response to therapy. A multi-institutional study with the National Cancer Institute and other SPORE sites has begun to evaluate changes in the proteomic signature patterns of women with relapsed ovarian cancer. This pattern may serve as a method of reliably predicting relapse alone or in combination with CA-125 monitoring.

We are working with the Department of Medical Oncology to investigate optimal first line chemotherapy for women with advanced epithelial ovarian and primary peritoneal cancer. We also are evaluating the role of new molecular targeted therapies in the treatment of gynecologic malignancies. Working with the Margaret Dyson Family Risk Assessment Program, we are evaluating the role of Fenretinide in the prevention of ovarian cancer in high-risk women undergoing prophylactic oophorectomy. The role of longitudinal CA125 screening in high-risk women for ovarian cancer is also being investigated.

Collaborating with P. Anderson[§] in Radiation Oncology we are examining the use of intensity modulated radiation therapy (IMRT) in women with endometrial cancer in order to optimize treatment time and limit side effects. We are collecting serum and tissue samples as part of the GOG molecular staging of endometrial cancer. The goal of the study is to develop more individualized treatment of endometrial cancer based on molecular characteristics identified in tumor tissue, normal tissue, and biological fluids like serum or urine.

The role of lymphatic mapping and sentinel node identification in women with cervical and vulvar cancer is being studied in ongoing clinical trials. In addition a GOG study evaluating the use of a fibrin sealant at the time of inguinal lymphadenectomy to reduce lymphedema has been completed.

Publications

Chalas, E., Costantino, J.P., Wickerham, D.L., Wolmark, N., Lewis, G.C., Bergman, C. Benign gynecologic conditions among participants in the Breast Cancer Prevention Trial. *Am. J. Obstet. Gynecol.* **192**:1230-1239, 2005.

Norton, T.R., Manne, S.L., Rubin, S., Hernandez, E., Carlson, J., Bergman, C.A., Rosenblum, N.G. Ovarian cancer patients' psychological distress: The role of physical impairment, perceived unsupportive family and friend behaviors, perceived control, and self-esteem. *Health Psychol.* **24**:143-152, 2005.

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