## Anal Fissures Associated With Targeted Therapies in Ovarian Cancer

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Although ovarian cancer remains a leading cause of gynecologic cancer death, targeted therapies are improving patient outcomes. Anal fissures are a side effect of targeted therapies that can disrupt or stop treatment regimens. Diagnosis and management of anal fissures by advanced practice nurses are crucial for maintaining the quality of life of patients with ovarian cancer.

Ovarian cancer is one of the most common gynecologic cancers after cervical cancer worldwide and is the leading cause of death from a gynecologic cancer in the western world. An estimated 21,000 new cases of ovarian cancer will be diagnosed and 15,000 people will die from the disease in 2009 (American Cancer Society, 2009). Most cases are diagnosed in women older than age 65. About 10% of ovarian cancers are hereditary and may be associated with a BRCA1 or BRCA2 mutation. Ovarian cancer has been thought of as the "silent killer," but a consensus statement by the Gynecologic Cancer Foundation (2007) lists symptoms that may be present at diagnosis of early stage disease: bloating, pelvic or abdominal pain, difficulty eating, feeling full quickly, and urgent or frequent urinary symptoms. Women who have these symptoms for more than a few weeks should see their gynecologist.

Women who are diagnosed in the early stages of the disease have better outcomes. Favorable prognostic factors are younger age at diagnosis, good performance status, cell type other than mucinous or clear cell, stage I or II, well-differentiated tumor, smaller volume disease before or after debulking surgery, absence of ascites, and smaller residual tumor (less than 1 cm) following primary debulking surgery (Cain, El Masri, Gregory, & Kohn, in press; National Cancer Institute [NCI], 2009).

Treatment of ovarian cancer is directed by stage at diagnosis, grade of tumor,

and treatment goals. Surgery is necessary for treatment as well as adequate staging and should be performed by a gynecologic oncologist. For stage IA or IB well-differentiated or moderately differentiated tumors, surgery alone may be adequate (Cain et al., in press). However, if the tumor is poorly differentiated or stage IC (positive ascites, surface involvement, physiologic or surgical rupture), adjuvant chemotherapy after debulking surgery is recommended; the systemic chemotherapy is based on platinums (cisplatin or carboplatin) in combination with a taxane, paclitaxel, or docetaxel (NCI, 2009).

For patients with stage III and IV disease at diagnosis, treatment may be directed by the outcome of surgery. Recommended treatment for a patient with optimally debulked (less than 1 cm residual disease at completion of surgery) is intraperitoneal (IP) chemotherapy with IP cisplatin, IP paclitaxel, and IV paclitaxel. The recommendation is based on the results from three randomized clinical trials (GOG-104, GOG-114, and GOG-172), which showed an increase in progression free survival and overall survival in patients receiving IP therapy (Alberts et al., 1996; Armstrong et al., 2006; Markman et al., 2001). GOG-172 demonstrated a median survival of 66 months on the IP arm versus 50 months on the IV arm. However, patients on the IP arm did experience increased toxicities of fatigue, pain, and hematologic, gastrointestinal, metabolic, or neurologic side effects as well as a significant decrease in their quality of life during treatment (Armstrong et al.).

For patients with suboptimally debulked stage III or IV disease, first-line treatment is platinum given in combination with paclitaxel (NCI, 2009). In recurrent or relapsed ovarian cancer, therapy choice depends on time to relapse or the platinum-free interval. If a patient recurs more than six months after the end of treatment with a platinum, she is considered platinum sensitive and retreatment with a platinumcontaining regimen is recommended (NCI). If a patient recurs within six months of receiving a platinum, she is considered refractory to platinums and second-line therapies are considered. Second-line therapies include topotecan, liposomal doxorubicin, docetaxel, or gemcitabine. These drugs may be given alone or in combination. Consideration should always be given to available clinical trials (for more information, call +1-800-4-CANCER or visit www .clinicaltrials.gov).

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