ABOUT LOW-GRADE SEROUS OVARIAN CANCER (LGSOC)

What is LGSOC?

Low-grade serous ovarian cancer (LGSOC) is a subtype of ovarian cancer that is characterized by younger age at diagnosis and resistance to chemotherapy. It occurs in the epithelial cells that line the surface of the ovary.[1]

- Represents 6-8% of all ovarian cancers[1]
- Typically diagnosed in women 45-55 years of age[1]
- Associated with slow tumor growth[1]
- Associated with variations in mutations in the BRAF and RAS genes[2]
- Mutations in the KRAS gene (KRAS positive) are present in 35-57% of cases of LGSOCs[1]
- 85% of patients who achieve full remission following first-line therapy will develop recurrent disease[3]

Symptoms

Ovarian cancer is usually asymptomatic, meaning that no symptoms present themselves in early stages, which may be why most women aren't diagnosed until their cancer has progressed.[2]

Symptoms may include:

- Abdominal bloating[2,4]
- Pelvic or abdominal pain[4]
- Unintended weight loss[2]
- Feeling full quickly[4]
- Constipation and other changes in bowel habits[2]

Risk Factors[2]

Factors that may increase one's risk of developing ovarian cancer include:

- Genetics
- Low functioning immune system
- Environmental factors such as infertility, long-term hormone therapy (estrogen replacement therapy), use of an intrauterine device (IUD), increasing age, having never given birth, endometriosis, and polycystic ovarian syndrome (PCOS)

Treatments & Experimental Therapies

- The initial management strategy for treating LGSOC and recurrent LGSOC consists of surgery to remove all visible signs of cancer, followed by chemotherapy[1]
- Potential treatments for recurrence also include hormone inhibitors and MEK inhibitors[1]
- LGSOC is a difficult to treat disease and current treatments are associated with:
  - Low response rates[1]
  - Sub-optimal efficacy[5]
  - High toxicity, making it difficult for patients to stay on therapy[5]
- Experimental targeted therapies that have the potential to stop or slow the growth of tumors with less toxicity are currently being investigated. Click here to learn more: verastem.com

References: 1. Grisham, R. Low grade serous carcinoma of the ovary. Oncology. 2016. 30(7):650-652. Available at: https://www.cancernetwork.com/view/low-gradeserous-carcinoma-ovary. Accessed December 3, 2020. **2.** National Organization for Rare Disorders. Ovarian Cancer. Available at: https://rarediseases.org/rare-diseases/ovarian-cancer/. Accessed December 3, 2020. **3.** Corrado G, Salutari V, Palluzzi E, Distefano MG, Scambia G, Ferrandina G. Optimizing treatment in recurrent epithelial ovarian cancer. Expert Rev Anticancer Ther. 2017;17:1147-1158. doi: 10.1080/14737140.2017.1398088. **4.** American Cancer Society. Signs and Symptoms of Ovarian Cancer. Available at: https://www.cancer.org/cancer/ovarian-cancer/detection-diagnosis-staging/signs-and-symptoms.html. Accessed December 3, 2020. **5.** Slomovitz, Gourley, Carey, Malpica, Shih, Huntsman, Fader., Grisham et al, Low-Grade serous ovarian cancer: State of the Science; Gynecol Oncol; 2020.

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