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**Intraperitoneal chemotherapy for ovarian cancer: A complex strategy but what an exciting avenue!**

An estimated 2,400 new cases and 1,550 deaths were due to ovarian cancer in Canada last year. Currently, the optimal current care for ovarian cancer includes aggressive surgery, first-line chemotherapy and follow-up.

After more than 20 years of investigation, there are now three (3) major North American phase III trials showing positive results (GOG-172, SWOG-9619, GOG-114/SWOG-9227). Chairled by Dr. Deborah Armstrong, the most recent study, GOG-172, observed an improvement in survival for those women treated with intraperitoneal chemotherapy as adjuvant treatment following optimal cytoreduction surgery for ovarian cancer. This study, along with other published randomized controlled trials, shows a consistent trend of improved survival in a selected group of ovarian cancer patients. The National Cancer Institute in the United States has recently issued a clinical announcement supporting the use of intraperitoneal chemotherapy in this subset of ovarian cancer patients. The Society of Gynecologic Oncologists of Canada (GOC) supports the use of intraperitoneal chemotherapy in optimally debulked stage three ovarian cancer patients. GOC and its partners in comprehensive cancer centres in Canada will develop a strategy to implement this care for our patients.

Intraperitoneal chemotherapy is particularly appealing as the disease is most often confined to the intraperitoneal cavity and the pharmacokinetic studies suggest an advantage to the prolonged exposure of the drug to the tumor. However, there are treatment complexities limiting adoption by the oncology community, arising primarily from the presence of an intraperitoneal catheter which may lead to short term potentially severe toxicities including infection, haemorrhage, bowel perforation, obstruction, pain, inadequate drug distribution. The new data confirms that intraperitoneal therapy can provide improved outcomes for patients with small-volume or no visible residual disease and an intact peritoneal cavity. The Society of Gynecologic Oncologists of Canada is committed to support availability of this therapeutic option to appropriate candidates under optimal and safe conditions.

Candidates for the intraperitoneal therapy include those in whom complete surgical resection has been achieved and to whom a multidisciplinary team providing safe catheter management is available. The feasibility of achieving optimal cytoreduction is highly variable among women undergoing ovarian cancer surgery (19-82%) and depends on timely patient access to a surgical team with appropriate surgical expertise and upon the biology of the tumor itself as well as any co-morbid factors that could make extensive surgery unsafe or unwise. IP chemotherapy is complicated and requires a full understanding of the risks and benefits associated with its delivery. GOC recommends that this care be offered by a
multidisciplinary team providing safe catheter management in an environment where safe administration and surveillance are available. It is of primary importance that the risks and complications of this therapy be discussed with the patient and subsequently, if complications develop, they be managed by the expertise of the multidisciplinary team, and that all treatment decisions be individualized.

We need to continue to promote awareness to women and physicians of this insidious disease. Unfortunately, over 70% of the women are diagnosed at an advanced stage when symptoms develop due to the invasion of other pelvic organs or metastasis leading to abdominal bloating, discomfort and an increase of the abdominal girth. The prognosis of ovarian cancer is generally poor, as reflected by the fact that the 5-year survival is under 40%. While early stage disease correlates with increased survival, early detection is rare and screening programs in the general population have been unsuccessful. The cause of ovarian cancer is unknown. Population-based case control studies report that the number of pregnancies, breast-feeding, oral contraceptive pill use and tubal ligation or hysterectomy decreases risk. In 5-10% of patients, this cancer is imputable to heredity because of a mutation in BRCA1 or BRCA2, genes currently associated with predisposition to cancer, primarily breast, ovary and prostate.

In summary it is now clear that to achieve the best outcomes for ovarian cancer patients, intraperitoneal chemotherapy must be made available to appropriate candidates. The Society of Gynecologic Oncologists of Canada supports this approach to care and recommends that cancer centres in Canada develop the expertise to provide and support this method of treatment.

Studies will be pursued to further refine intraperitoneal chemotherapy techniques and agents. The Society of Gynecologic Oncologists of Canada is committed to bridge the gap between knowledge and practice that relates to intraperitoneal therapy with emphasis on education, vigilant data collection, safety and evidence based care.

For more information please refer to the following web sites.
1. NCI: www.nci.gov
2. NEJM: http://content.nejm.org/cgi/content/full/354/1/34?ijkey=rUfJ2MPikZRyE&keytype=ref&siteid=nejm
3. SGO: www.sgo.org
4. GOC: www.g-o-c.org

On behalf of the Executive Council of The Society of Gynecologic Oncologists of Canada,

Diane M. Provencher, MD, FRCS(C), FACOG
President
The Society of Gynecologic Oncologists of Canada