Editorial

J Gynecol Oncol Vol. 23, No. 2:78-79
http://dx.doi.org/10.3802/jgo.2012.23.2.78

pISSN 2005-0380
eISSN 2005-0399

Journal of Gynecologic Oncology
jgo

How to make the best strategy to manage thromboembolism in ovarian cancer?

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See accompanying article on page 98.

Ovarian cancer has several unique characteristics among adult solid tumors: the highest risk of thromboembolism from the disease burden itself and related treatments, survival benefit of extensive cytoreductive surgery to minimize residual tumor even in cases of peritoneal seeding, and the strongest hereditary portion in adult solid tumors.

Risk factors for venous thromboembolic disease includes active cancer, advanced stage, cancer type such as gynecologic cancers, regional bulky lymphadenopathy with extrinsic vascular compression, familial and/or acquired hypercoagulability, medical comorbidities, poor performance status, and old age [1]. Ovarian cancer is the one of the bulky malignant tumors of the peritoneal cavity, and therefore, we can assume that there will be a very high risk of thromboembolism in such patients. The risk of thromboembolism is related to secreting factors from the tumor such as tissue factors, reduced physical activity, and chemotherapy. Extensive cytoreductive surgery to minimize residual tumor is essential for the best treatment outcomes in terms of disease specific survival in the management of ovarian cancer. Classically, extensive surgery and pelvic surgery are classified as one of the risk factors for surgery-related thromboembolism. Contrary to common belief, extensive cytoreductive surgery is not related to the risk of postoperative thromboembolism in patients with ovarian cancer [2,3]. This may be explained by the fact that the risk of thromboembolism is related closely with tumor burden rather than the surgical procedure itself while providing dual thromboprophylaxis consisting of gradient stockings and enoxaparin administration. The risk of thromboembolism should be carefully evaluated whenever there is suspicious ovarian cancer, and clinical suspicion is most important. Symptoms of thromboembolism such as dyspnea and/or leg edema can be easily ignored because ascites, pleural effusion, or lymphedema is commonly identified in ovarian cancer patients. Therefore, careful and objective evaluation is required for ovarian cancer patients with such symptoms.

In this issue, Kawaguchi et al. revealed that D-dimer level of <1.5 μg/mL may be used as the criteria to exclude the possibility of venous thromboembolism in a single center, retrospective study [4]. The sensitivity, specificity, positive predictive value, and negative predictive value are 100%, 62%, 33%, 100% if using cut-off value of D-dimer level >1.5 μg/mL. D-dimer is not expensive and very simple to evaluate. Because thromboembolism may result in a life-threatening event, early detection of thromboembolism is obviously very important. Prospective studies for subclinical detection of thromboembolism using D-dimer and/or thromboembolism-related symptoms are required to confirm the cost-effectiveness and/or survival benefit. New recommendations on the guidelines of thromboembolism is required based on current evidence and results from future clinical trials.

Received Mar 19, 2012, **Accepted** Mar 19, 2012

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CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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