

Editorial



Do we need a better marker for successful ovarian cancer surgery?

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Conflict of Interest

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

► See the article “Perioperative changes in serum CA125 levels: a prognostic factor for disease-specific survival in patients with ovarian cancer” in volume 28, e7.

It is unarguable that residual tumor volume after primary cytoreductive surgery is the best prognostic factor in clinical course of epithelial ovarian cancer [1]. Nowadays, residual tumor volume does not only predict patients' prognosis but also guides adjuvant treatment strategy including application of targeting drugs. Thus, a growing number of current clinical trials are selecting or stratifying their subjects according to the most significant predictor of prognosis, residual tumor volume. Does this best prognostic factor have a weakness? Yes. It is subjective.

In the recent issue of the *Journal of Gynecologic Oncology*, Zwakman and his colleagues boldly proposed that the perioperative decline in serum CA125 can be a better marker for residual tumor volume after ovarian cancer surgery than the surgeons' estimation of residual tumor [2]. In the retrospective study including 123 ovarian cancer patients, the authors compared perioperative decline of CA125 levels with residual tumor categories which is subjectively reported by surgeons. In agreement with a few similar studies [3-5], the authors concluded that the patients who have less than 50% decrease of CA125 levels showed higher disease specific mortality and the perioperative change of CA125 was a better predictor than residual tumor volume.

The authors' results are not surprising when we consider that the CA125 decline and the reported cytoreduction outcome was closely associated. Probably, the small number of subjects in this study hindered showing significance of both predictors other than the decline of CA125. Then, why did decline of CA125 levels show better prognostic value than the residual tumor volume assessed by surgeon? As authors indicated, there may be a few explanations. First, the current assessment method of residual tumor volume by surgeons does not include number of lesions. Second, surgeons' assessment of residual tumor volume may be biased and usually underestimate the volume of residual tumor.

Despite several limitations, the authors' data contributed to accumulating the evidences that perioperative change of CA125 can be used for estimating the residual tumor volume or successful cytoreduction in ovarian cancer surgery. If one may not agree that the CA125 is a better alternative, at least he or she will admit that we need more reliable and objective assessment tool for successive cytoreductive surgery. To accomplish this goal, many

researchers have proposed a number of alternatives such as more comprehensive and extensive surgery report, the perioperative change of serum biomarkers, or assessment by functional imaging. However, we still have a ton of unanswered questions. Should we abandon one and choose another? Or should we choose all of them and mix up to develop a comprehensive prediction model? How will tumor biology interact with the physical dimension of residual tumors? Should we consider cost of those studies and their effectiveness? While it is very important that we should not neglect minor evidences such as the current study, it is also very important that our community of gynecologic oncologists should put effort on solving these questions. We need to analyze the accumulated evidences, develop a good predictive model, and test it in the large, multi-center cohorts. Again, we congratulate Dr. Zwakman and his colleagues on their inspiring report.

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