Can one outcome be used to predict the other outcome?

Fa-Kung Lee^a, Wen-Ling Lee^{b,c,d,*}

^aDepartment of Obstetrics and Gynecology, Cathay General Hospital, Taipei, Taiwan, ROC; ^bInstitute of Clinical Medicine, National Yang Ming Chiao Tung University, Taipei, Taiwan, ROC; ^cDepartment of Medicine, Cheng-Hsin General Hospital, Taipei, Taiwan, ROC; ^dDepartment of Nursing, Oriental Institute of Technology, New Taipei City, Taiwan, ROC

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DEAR EDITOR,

The recent article entitled "The clinicopathological and genetic differences among gastric cancer patients with no recurrence, early recurrence, and late recurrence after curative surgery" published in the *Journal of the Chinese Medical Association* attracts our vision.¹ Dr. Chen's group investigated the association between the recurrence and clinicopathological and genetic differences among gastric cancer patients after curative surgery.¹ It is interesting to find that the age, tumor recurrence, and pathological N categories were independent prognostic factors.¹ We congratulated their success. However, it is relatively confusing to using of outcome (recurrence) to predict the outcome (overall survival [OS]) in their article.

Conventionally, recurrence (progression-free survival [PFS] or disease-free survival [DFS]) and survival (OS) are always used for primary and secondary end points during and after the cancer treatment, respectively.²⁻⁴

Cancer treatment in the last decade has some changes, such as an emphasis on the quality of life (QoL) in cancer patients during and after therapy, suggesting "DFS" or "PFS" has replaced "OS" in certain situation. Furthermore, a prolonged PFS may not be a guarantee to have a longer OS. The well-known example is the therapy for advanced-stage epithelial ovarian cancer (EOC). Two prospective, randomized trials to evaluate the efficacy of adding bevacizumab to standard chemotherapy in the management of women with newly diagnosed EOC (ICON7 or GOG 218) found that the combination of antiangiogenesis agent and standard chemotherapy has a statistically significant improvement in PFS, but this benefit failed to transfer the prolongation of OS.^{5,6}

However, the discrepancy between PFS (DFS) and OS is found in the "fatal" diseases, such as advanced-stage EOC, because the majority of patients will die of this fatal disease. By contrast, the therapy provided by Dr. Chen's group is a "curative surgery", suggesting only limited number of patients will recur and/or finally die of disease. Since it is well-known that recurrence is a reflection of therapeutic failure, and majority of patients with recurrence will die of disease, we are wondering to know why the authors can use the main "outcome" to predict the other main "outcome" of diseases.

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^{*} Address correspondence. Dr. Wen-Ling Lee, Department of Medicine, Cheng-Hsin General Hospital, 45, Cheng Hsin Street, Taipei 112, Taiwan, ROC. E-mail address: johnweiwang@gmail.com (W.-L. Lee).

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