DR-70 immunoassay in gastric cancer

To the Editor,

Gastric cancer is a major health problem worldwide and is the fifth most common cancer type and the second most frequent cause of cancer-related deaths (1). The definitive diagnosis of gastric cancer is based on gastroscopic biopsy investigation. However, tumor markers can assist in diagnosis, screening, and follow-up of the disease. The current markers for gastric cancer, such as carcinoembryonic antigen (CEA), cancer antigen72-4 (CA72-4), cancer antigen19-9 (CA19-9), and serum tissue polypeptide antigen (TPA), have insufficient sensitivity and specificity and have a minimal use in clinical practice. Therefore, new biomarkers for gastric cancer are required (2). In this regard, I have read the article by Arhan et al. (3) titled "DR-70 as a novel diagnostic biomarkers for gastric cancer," in which the authors reported a serum marker with high sensitivity and specificity for gastric cancer. It is a fascinating article and a good read, but there are some considerations and caveats on the clinical use of DR-70 in gastric cancer.

Firstly, DR-70 immunoassay detects the levels of fibrin and fibrin degradation products in plasma, which generally increase in malignancies. However, these fibrin and fibrin degradation products are not specific for malignancies, and increased levels can be detected in various non-malignant conditions such as deep vein thrombosis, anticoagulant usage, hepatic failure, renal failure, congestive cardiac failure, infection, hemolysis, and recent major trauma or surgery (4). Therefore, these non-malignant conditions should be determined carefully and accurately, and patients with these conditions should be excluded from the study in cancer trials.

Secondly, it has been shown that DR-70 levels can increase in many other cancer types, such as lung, pancreatic, colorectal, hepatocellular, and cholangiocellular cancers (5). Hence, it should be considered that DR-70 can be used as a nonspecific tumor marker, and it is not a specific marker for gastric cancer.

Thirdly, there is no study to determine when this marker should be applied by the clinicians, and large population studies are needed to show the usability of marker for screening, diagnosis, staging, and follow-up of the disease.

Finally, there is no knowledge about the cost-effectiveness of the DR-70 immunoassay in gastric cancer. It would be valuable if the authors could add that information.

Consequently, although this study showed that DR-70 has a high specificity and sensitivity for gastric cancer, there are some limitations of the study. In addition, new studies with large populations are required to determine the usability of DR-70 immunoassay for gastric cancers in routine practice.

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