Reviewer's report

Title: Proteome analysis of human gastric cardia adenocarcinoma by laser capture microdissection

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Reviewer: Mitsuhiko Osaki

Reviewer's report:

General
This is a study on clinical samples obtained in 9 patients suffering gastric cardiac adenocarcinomas (GCAs). The authors aimed at identifying differentially expressed proteins by comparing paired samples (GCAs and their adjacent non-tumoral cardia tissues) using 2-DE and MALDI-TOF-MS. Protein samples used in this study were extracted from laser capture microdissection (LCM). Twenty-three differentially expressed proteins could be identified, 15 being up-regulation in GCAs. Confirmation was obtained with immunohistochemistry and Western blotting on only HSP27.

This is a very interesting study, however, some questions remain which need to be addressed by the authors:

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

To confirm the validity of proteome analysis in this study, the authors should perform immunohistochemistry or Western blotting for not only HSP27 but also more a few proteins described in Table 2.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

According to Table 1, the 9 clinical samples were composed of 3 well differentiated, 3 moderately differentiated and 3 poorly differentiated types, respectively. Are there any differences or relationship between histological type and protein expression?

The authors performed proteome analysis using only cardiac adenocarcinomas. It is considered that the data will be important to find out the feature of GCAs. Recently, some papers obtained in gastric non-cardiac adenocarcinoma using proteomics technologies are reported, in particular:


Results should be compared/contrasted with those obtained in these studies to reveal the common or distinctive feature of GCAs.

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.