Reviewer’s report

Title: Expression of the Na+/I- symporter (NIS) is markedly decreased or absent in gastric cancer and precancerous lesions

Version: 1 Date: 11 October 2006

Reviewer: Toshiyuki Nakayama

Reviewer’s report:

General
This article showed that the loss of expression in gastric cancer and precancerous lesion of Barrett mucosa by immunoblot and immunohistochemical analysis. The data is clear and easy understandable. Figures and Tables are high quality and conclusive.

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

1) Authors summarized that NIS immunohistochemical tests may be early molecular marker in the diagnosis of precancerous or/and cancerous lesion. However, histopathologically Barrett mucosa showed just metaplastic change of gastric or intestinal mucosa in esophagus. In this study, all data should reflect its histological differentiation of metaplastic mucosa in Barrett esophagus. I hope that the title of this study is better in “Expression of the Na+/I- symporter (NIS)......absent in gastric cancer and intestinal metaplastic mucosa of Barrett’s esophagus”.

2) Authors should show the number of each histological type of gastric cancer that authors examined. Though histological types were mentioned in result paragraph, squamous type of carcinoma is very rare in stomach. The diagnosis of histological type of carcinoma should be doubtful. Please re-consider the diagnosis histopathologically.

3) Adenoma is acceptable as precancerous lesion in stomach. However, in this study, there is no mention of adenoma in stomach. It is much interesting in the expression of NIS in gastric adenoma. Authors should add cases of adenoma in this study and please mention the result and discuss.

4) Barrett mucosa of esophagus might be recognized as precancerous lesion by authors. However, histopathologically Barrett mucosa showed just metaplastic change of gastric or intestinal mucosa in esophagus. In Table 2, authors showed same expression of NIS(+) in junctiona/fundus type of Barrett mucosa as normal gastric mucosa. And more, intestinal metaplasia of Barrett in esophagus showed same as normal mucosa in small intestine. Please examine the expression of NIS in the intestinal metaplastic mucosa of stomach, that is usually occurred in chronic gastritis.

5) In Table 2, the classification of “Stomach-polyp” is histologically ambiguous. Polyps in stomach include histopathologically remaining normal mucosa in atrophic mucosa, hyperplastic polyp, adenoma and adenocarcinoma, etc. Authors should mention its histological nature.

6) Normal mucosa near the carcinoma usually shows slightly hyperplastic change. Authors showed faintly expression of NIS in border of mucosa in Table 3. However, gastric polyp showed positive staining for NIS. If authors have some data of NIS expression in hyperplastic polyp of stomach in addition to polyp with colon-type metaplasia, please show it and discuss.

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

1) In table 3, >3cm distance, the total number of tumors in stomach is different from the sum of the number in each column.
2) Figure 1-F may be deformed to wide. Please change it to natural form.

Topological:
1) The font of “secretion” is italic (page 4, line 1). Please change usual font style.
2) Please insert a parenthesis after “shown” (page 10, line 21).
3) Please change the term “negativ” to “negative” (page 18, line 10).
4) Please change the term “intestina” to “intestinal” (page 20, line 9 in Table 2)

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Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.