Reviewer's report

Title: Alcohol consumption is associated with an increased risk of erosive esophagitis and Barrett's epithelium in Japanese men

Version: 1 Date: 10 June 2008

Reviewer: Piers Gatenby

Reviewer's report:

Thank-you for submitting this paper.

The authors should be commended for their work in helping to elucidate epidemiological and lifestyle associations of Barrett's Esophagus.

Major Compulsory Revisions:

Abstract background - "the roles... are less well defined..." The authors must explain what the roles are less well defined than or in another way amend this sentence which is currently incomplete.

Abstract results - the 95% confidence intervals stated for the >50g/day groups are incorrect for the odds ratios for both erosive esophagitis and Barrett's esophagus in the abstract and throughout the manuscript. The odds ratios stated do not lie within the 95% confidence intervals. Furthermore the p values for the odds ratios should be stated in the abstract. The trend for the dose response relationship is not sufficiently clearly described in the abstract or later in the main body of the manuscript.

Abstract conclusion - the results appear to demonstrate a trend for an association, no causal role or statistical difference. The conclusion drawn is not valid based upon the results stated.


Methods - paragraph 1 - explain why cases were excluded "because their profiles were unsatisfactory", what the inclusion criteria were and the indications for endoscopy if these formed part of the inclusion criteria.

Methods paragraph 3 - quantify how smoking habit was examined for the purposes of analysis. Please also explain what "shochu" is for non-Japanese readers. Please also quantify how g of alcohol compares to number/volume of drinks and their alcohol percentage.

Methods ethics - please state that patients consented to be involved in the study.

Methods statistical analysis - state the type of regression analysis used. Also
expand on the linear regression of the logistic regression for analysis of
dose-response trends with validation for this analysis.

Results and discussion paragraph 3 - state the definition of long and
short-segment Barrett's esophagus (what is the cut-off?).

Results and discussion - the authors should comment on the British Society of
Gastroenterology guidelines that the histological detection of specialized
intestinal metaplasia is not pre-requisite for the diagnosis of columnar metaplasia
of the esophagus as its absence on one set of biopsies may be solely due to
sampling error and the tissue still has an increased neoplastic potential
compared to squamous-lined esophagus.

Results and discussion - correct the odds ratios and 95% confidence intervals as
above and also in the table.

Results and discussion - correct the paragraph on alcohol consumption and risk
of erosive esophagitis and hiatal hernia as only a trend has been demonstrated
using a linear regression of the odds ratios. This should also be corrected further
on in this section for the finding of Barrett's esophagus.

Discussion - comment on the low incidence of adenocarcinoma in the Japanese
population despite the high incidence of Barrett's esophagus in the study
population.

Discussion - the authors are commended on their speculation on the mechanism
by which alcohol may be a causative factor in the development of erosive
esophagitis and Barrett's esophagus.

Discussion - I would recommend that the authors discuss the role of
physiological studies to examine differences in patients who consume alcohol
and the absence of these data from the cohort.

Conclusions - see comments on the abstract.

Table 1 - clarify smoking habit.

Table 2 - the p-value column is empty and smoking habit requires definition.

Table 3 - correct the odds ratios and 95% confidence intervals as above.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**
I declare that I have no competing interests