Reviewer's report

Title: DNA index determination with Automated Cellular Imaging System (ACIS) in Barrett's esophagus: Comparison with CAS 200

Version: 2 Date: 13 April 2005

Reviewer: Jean-Francois Flejou

Reviewer's report:

General

The authors have performed a study of a moderately numerous series of esophageal specimens with Barrett's esophagus and various grades of dysplasia and carcinoma. They compare in this material the performance of DNA image cytometry performed with two systems: ACIS and CAS 200. The study has been well performed, and furnishes original data. The demonstration of a more sensitive evaluation of DI and aneuploidy with ACIS seems convincing, although the authors may emphasize more clearly the different procedures with the 2 techniques, such as staining techniques and even sections thickness.

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

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

Minor points:
- The paragraph entitled aneuploidy analysis (p. 7) lacks clarity.
- The result time required for one analysis (p. 9) gives results that were not announced in the material and methods section. These results have either to be precised, with a method indicated before, or deleted and only introduced in the discussion.
- Some spelling mistakes are present (for example in the 3rd paragraph of page 9).
- Although the authors claim that image cytometry is more sensitive than flow cytometry, they may indicate that only flow cytometry has been studied in large series of patients (see for example the work published by the group of B Reid from Seattle).

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential 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