Reviewer's report

Title: Simplifying the detection of MUTYH mutations by high resolution melting analysis

Version: 2 Date: 28 June 2010

Reviewer: Maartje Nielsen

Reviewer's report:

The authors have improved the manuscript according the comments of the reviewers. The manuscript is now more clearly structured.

I have one minor essential revision and a few discretionary revisions. I also think the manuscript needs some language corrections. Since I have a clinical background, I cannot judge the methods sections very well, especially the part on the melting curve analysis, although the graphs look fine.

Minor revisions

• Results and discussion section:
  Associations of monoallelic and G338H carriers with differences in the phenotype are analysed. It should be mentioned here that this analysis is done in an already selected group and there are no data of a healthy control group. For example all subjects had metachronous or synchronous polyps. Therefore it is not possible in general to state whether monoallelic carriers (and G338H carriers) associate with polyps (metachronous and/or synchronous) or not.
  I suggest author’s state at the end of their sentence ‘in this selected group’. For example:
  In relation to the 19 carriers of p. G338H polymorphism [9] we found no association with any of the following variables: synchronous adenomas (p=0,76) CRC (p=0,79) and family history (p=0,11) in this selected group.

Discretionary revisions

• The last sentence of the background seems more appropriate for the beginning of the introduction- for example as the second sentence?
  • Page 9: Monoallelic MUTYH germline mutations in 7.3%, i.e. 6/82 carried monoallelic MUTYH germline mutations. Change this sentence in:
  Monoallelic MUTYH germline mutations were found in 7.3% (6/82)?
  • Discussion: In contrast, classical FAP patients, as is described in the literature16,17, shows a CRC onset 10 years earlier. Show?
  • Authors left some notes for themselves I suppose in the following sentences:
    - methods section: The significance level will be? (was) at <or equal to 0.05.
- results: Several rounds (falta un verbo – were carried out?), as a confirmatory method and to set the appropriate sensitivity in each exon.

**Level of interest:** An article of importance 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