Reviewer’s report

Title: Smoking increases rectal cancer risk to the same extent in women as in men: Results from a Norwegian cohort study

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Reviewer: Edoardo Botteri

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I read with interest the article by Parajuli et al. on the association between smoking and rectal cancer by gender. The study is well conducted, the data are clear and the results of a real interest. I have only one major comment.

The lack of information on some potentially biasing factors – especially alcohol consumption - weakens the conclusions of the study. The authors correctly highlighted this limitation in the discussion section. Nevertheless, I am not sure that this information is missing for all individuals. For example, in a very recent article (“Smoking duration before first childbirth: an emerging risk factor for breast cancer? Results from 302,865 Norwegian women” by Bjerkaas et al; Cancer Causes Control. 2013 July; 24(7): 1347–1356) on 302,865 Norwegian women recruited into the Norwegian Counties Study (1974–1988), the 40 years Cohort (1985–1999) and the Cohort of Norway (CONOR, 1994–2003), which are three of the four cohorts included in the present paper, alcohol was reported for approximately 38% of the study population. If the information on alcohol is available for some part of the study population, authors should report a sensitivity analysis among individuals who had reported on alcohol consumption. I wonder whether the conclusions on the link between smoking and rectal cancer by gender are still valid after the adjustment for alcohol or stratification for alcohol categories.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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