

## Letters to the Editor

### Evidence-based review *versus* Points of view

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*Palabras clave: Cáncer colorrectal. Dimetilhidrazina. Etanol. Modelos animales.*

*Key words: Colorectal cancer. Dimethylhydrazine. Ethanol. Animal models.*

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Dear Editor:

After having carefully revised manuscript titled "Dimethylhydrazine model is not appropriate for evaluating effect of ethanol on colorectal cancer" (1), I send you my comments as required.

Authors' point of view is presented in this manuscript, replying to an original work published in 2005. Therefore, title should be as follows: "Reply to an Original: Rev Esp Enferm Dig 2005; 97 (2): 87-96".

Colonic carcinogenesis induced with 1,2-dimethylhydrazine (DMH, or its metabolite AOM) in rats has proven to be a valuable model to investigate colorectal cancer, including effects of ethanol, since more than 30 years ago, by several authors, cited both in the manuscript, and both in the original work replied.

The manuscript was neither an original work nor an experimental investigation. So I decided to analyze the references cited in the manuscript to discover why these authors have concluded that DMH model was not appropriate on.

They had taken into account 26 references. Seven references out of 26 belonged to the original work replied.

First eight references out of 26 (cited as 1 to 8) consisted of epidemiologic studies in humans. One reference out of 18 left did not use the model (cited as 13). Another study out of 18 left (cited as 23) did use the model on small bowel cancer. Finally, 16 references left out of 18 did use the model, defining and limiting it (number of tumors, histology, tumors per

rat, dose and timing-related effect, size, location, and so on), as commented in the original work replied by authors.

Based on these data, evidence-based results obtained by authors were:

16 studies out of 26 did use that model to investigate on colorectal cancer, one study used a genetic model without carcinogen, and 9 studies out of 26 cited did not contribute to this issue (8 studies in humans, and one on small bowel cancer). It seems a paradox that based on their evidence, authors have concluded on the contrary.

Since that original work replied was published in 2005, three studies have been reported, and were cited in this manuscript. Two studies out of 3 on colorectal cancer in humans (cited as 2 and 6), and one out of 3 (cited as 19) on colorectal cancer in rats using DMH model by the same authors that had signed this manuscript (Perše M, and Cerar A).

Manuscript does comment a study on Min mouse (cited as 13, published by Roy et al. in 2002) as an alternative to DMH model. More bibliographic investigation is needed on this issue.

Recently, an article has appeared (Noguera Aguilar JF, Gamundí Gamundí A. Experimental colonic carcinogenesis. Rev Esp Enferm Dig 2006; 98 (6): 637-43), reflecting on the future in experimental models, as authors did. It is recommended to be included in their manuscript.

Finally, talking about ethical aspects on experimental models in animals, manuscript recommends following European Ethical Committee's recommendations (Directive 1986/609). In Spain, the new legal framework on animal experimentation (Royal Decree 1201/2005, October 10; BOE number 25, October 21, 2005) clearly states all these ethical aspects more over than the European one. It is also recommended to be revised by these authors and included in their manuscript.

### Conclusion

The manuscript is neither a meta-analysis nor an evidence-based review.

Authors present some hypothesis and ethical approaches based on a few evidence.

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**Reference**

1. Perše M, Cerar A, Dimethylhydrazine model is not appropriate for evaluating effect of ethanol on colorectal cancer. *Rev Esp Enferm Dig* 2007; 99 (8): 463-6.