Reviewer’s report

Title: Dietary intervention with narrow-leaved cattail rhizomes flour (Typha angustifolia L.) prevents intestinal inflammation in trinitrobenzenesulphonic acid model of rat colitis

Version: 1 Date: 5 March 2012

Reviewer: Julio Galvez

Reviewer’s report:

In this study, the authors evaluated the potential preventive effect of narrow-leaved cattail rhizomes flour in the TNBS model of rat colitis, and the possible synergistic effect when administered concurrently with the glucocorticoid prednisolone. The experiments seem to be well conducted, and the results obtained are of relevance, but some modifications are needed in order to improve the quality of the manuscript, thus making it easier to read.

In the Introduction, in the paragraph in which the pharmacological treatments are listed, it is important to note that not all drugs used in IBD treatment share the same side-effects. Maybe, the authors should focus on the key role that glucocorticoids play in the treatment of these intestinal conditions, since they used prednisolone as positive control, being also another objective of the study the putative synergism with the flour.

In the Material and methods section, the methods used in the phytochemical analysis of the flour should be indicated briefly, or at least, the author should indicate the chemical components that have been evaluated.

In the Results section, Table 2 should be included in the manuscript instead of as supplementary data, because these data are relevant to understand the efficacy of the flour as anti-inflammatory in the experimental model. Maybe, the results should be presented by describing the effects of all concentrations of the flour altogether rather than starting with 20% and then describing the effects obtained with lower proportions.

The description of the data corresponding to the histological studies should be modified; i.e. if no effect was observed in microscopic score after flour treatments, it is difficult to assume that there was "clearly a pronounced recovery in the colon cytoarchitecture"; maybe, the author should comment that although no significant histological recovery was achieved, the flour treatment was able to ameliorate some of the processes involved in intestine inflammation, like leukocyte infiltration. The data corresponding to the microbiological analysis can be omitted, since no modification was obtained among healthy and colitic rats, or these explained in the text. Based on the results obtained in the anti-oxidant activity assay, it is not clear in the extract presents antioxidant properties or not, maybe this data can be compared with other standarized extracts with know chemical composition.
In the Discussion section, when the authors discuss the effects of the flour when combined with the glucocorticoid, it seems like if there was a deleterious effect. Maybe, the comment should be modified to highlight the beneficial effects obtained after the combination.

Based on the results obtained in the present study, a prebiotic effect cannot be discarded, since other bacteria can contribute to this effects (like bifidobacteria), which have not been evaluated in the present study.

Throughout the manuscript, there are paragraphs marked in yellow, is there any reason for it?

There are some grammatical errors, and the English should be revised.

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests