Reviewer's report

Title: Gastroprotective effect of Desmosdumotin C isolated from Mitrella Kentii against ethanol-induced gastric mucosal hemorrhage in rats: possible involvement of glutathione, heat-shock protein-70, sulphydryl compounds, nitric oxide and anti-helicobacter pylori activity

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Reviewer: Mohamed Morsy

Reviewer's report:

Major Compulsory Revisions

1- The authors wrote that they measured gastric acidity and reported that the used plant active constituent increases gastric acidity. However, it is not suitable to measure the acidity in ethanol-induced gastric ulcer as ethanol increases bicarbonate liberation from gastric mucosa which certainly affect gastric acidity. Moreover, to get gastric juice to measure gastric acidity we usually do pyloric ligation.

2- It is well known that the antisecretory drugs are the most effective drugs for treatment of gastric ulcer and many plant active constituents which significantly decrease the ulcer index in experimental animals have no clinical effects due to lack of effect on HCl secretion. That is may be why omeprazole, a very effective antisecretory drug, in this study decreased the gastric ulcer score in omeprazole-treated rats less than for the used agent. So it was better to check the effect of the used active constituent on gastric acid output.

3- The authors measured COX-2 activity in vitro and found that the used active constituent decreases this activity. So it was better to use indomethacin-induced gastric ulcer model as a suitable model for COX-2 inhibitory agents.

4- The authors’ conclusion that DES decrease ethanol-induced gastric ulcer through inhibitory effect on COX-2 enzymes, up regulating HSP-70 proteins and suppressing effect on Bax proapoptotic proteins. However, it is not known whether these results the authors observe are the reason or result of decreased gastric ulcer.

5- The authors used 3 doses, namely 5, 10, and 20 mg. However, we usually use log-dose for example 1, 10, 100 or semilog-dose for example 10, 30, 100 but we do not use doubling of the dose as this usually does not give enough differences for dose-response curve.

6- Do the authors used the whole stomach tissues or only the gastric mucosa? This is not clear.

Minor comments:
1- The paper needs refining in writing as there are enormous spelling and grammar mistakes as well as inconsistency. So, the authors will benefit from checking spelling and grammar mistakes.

2- Discussion writing should be generally improved.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Not suitable for publication unless extensively edited

**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.