Reviewer's report

Title: Cytotoxic effects of Euterpe oleracea Mart. in malignant cell lines

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Reviewer: Demetrios Kouretas

Reviewer's report:

major revision

In the present study, the authors investigated the cytotoxic effects of extracts from Euterpe oleracea Mart. plant against different malignant cell lines. The results showed that the extracts were especially effective against the growth of breast cancer cells MCF-7. Moreover, it was shown that the growth inhibitory effect on cancer cells was due to autophagy and not to apoptosis.

The present study is well written and experimentally designed. Moreover, it provides new data about the possible beneficial effects of extracts from Euterpe oleracea Mart. plant on human health, since there are only few studies regarding its anticarcinogenic properties. The results are well presented and support adequately the conclusions. Of course, more research is needed so as to elucidate the molecular mechanisms involved in the antitumour effects of the extracts. Thus, I would recommend the publication of the manuscript as long as the authors answer the following remarks:

Major compulsory revisions

1. Did the authors assess the polyphenolic composition of the tested extracts? The polyphenolic composition would help to identify the bioactive constituents accounting for the antitumour effects of the extracts.
2. A table or figure should be added that would show the total polyphenolic content of the extracts.

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

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