

COMMENTS TO AUTHORS

It was my pleasure to review the manuscript from Liang and his colleagues. This is an interesting article reporting the therapeutic effect of clostridium perfringens enterotoxin (CPE) on gastric cancer cells (SGC7901 cells) and on a subcutaneous tumor in nude mice model. I found a topic is interesting but have several points to address and improve the manuscript as below. 1. In the results section, CPE cytotoxicity in SGC7901 cells, authors stated that after treated for 24 hours with CPE (0-10 mg/L), "significant dose-dependent" cytolysis was obviously detected in SGC7901 cells by MTT assay (Fig 2B). To my eyes, the bar of CPE 4, 6, 8, may not significantly different. Please explain how you define dose dependent and which group that you compare in this figure? Do you compare with only the group prior (ie. Group 8 and 6) or you compare with all groups and found that it is significantly different which suggested dose-dependent? 2. What is the implication for this research? Authors should address clinical implication of this study. Can you provide me previous clinical data or trial that using CPE in the treatment of cancer or disease in human? Also, in CPE (+) group, injection site skin necrosis, and enteritis were also observed in 3/7 mice (43%) which are high. In the concept of cancer treatment, quality of life is one of the most important factors. The author should put this in the limitation of CPE and further studies are needed in the clinical implication of CPE in gastric cancer.

Answer to reviewer

Thanks for your review suggestions.

1. In the result section, Figure 2B just show the increasing curve of cytotoxicity with increasing dose, but we can not demonstrate dose dependent. So we delete "dose dependent" in revision manuscript.

Abstract CPE expressed significant cytotoxicity in SGC7901 cells, but not in GES-1 cells.

Results Cytotoxicity of up to 56% was observed 24 h in SGC7901 cells after CPE treatment and the cytotoxicity of CPE (2, 4, 6, 8, 10mg/L) showed significantly differences ($p < 0.05$) compared with CPE(0.2mg/L).

2. This study provide CPE may be a novel potential tool for gastric cancer's therapy. Although CPE showed potential therapeutic effects on some malignant tumors, there were still no clinical data or trials available. CPE's side effect limited its clinical application in tumor therapy. More studies need to be performed to overcome the limitation of CPE before its clinical application.