*We greatly appreciate the reviewers for their comments on our manuscript. We have studied the comments of the reviewers very carefully and have made appropriate revisions in the revised version of the manuscript. These revisions do not affect our interpretation of the results. We also responded point by point to each comment, as listed below.*

Reviewer #1: Dear authors; This is well designed and written study. I have several corrections and suggestions:

1) in the abstract, the sentence "Mean arterial pressure and pulse oxygen saturation in the dezocine group were significantly more stable at the time points (before dosing, disappearance of eyelash reflex, and wakeup) than in other groups ($P > 0.05$)" should probably end with ($P< 0.01$) to show significance.

*We have corrected these errors in the revised version of the manuscript.*

2) In the abstract, the sentence "Additionally, rates of reflex coughing, nausea, and vomiting were not statistically different between the four groups ($P > 0.05$)" does not seem necessary and I would omit it.

*But another reviewer think the side effects are important and should be incuded.*

3) In the introduction, it should be stated why the authors believe dezocine would be superior to other opioids for anaesthesia in endoscopy. The mechanisms of dezocine are described in the discussion setion, but should be mentioned in the introduction to provide justification as to why this study was conducted in the first place.

*We have made appropriate revisions in the revised version of the manuscript.*

4) You use the word 'indolent' to describe gastroscopy and colonoscopy. It is unclear what this words means in this context. It is not typical English terminology. Indolent usually is used to describe a disease such as cancer being inactive or asymptomatic. Please rephrase.

*“painless gastroscopy and colonoscopy”*

5) In the section "demographic information" you mentioned 'endoscopists...were similar among groups'. What does this mean? Were the endoscopists between groups equally skilled or experienced? Was it the same endoscopist for all patients?

*The endoscopists were equally skilled and were similar among the groups (P > 0.05).*

*6)* You clearly demonstrate that dezocine use reduces the need for high propofol doses during endoscopy. Similarly, in the dezocine group, many additional clinical benefits are seen which, I assume, are due to the reduced propofol doses. However, can you provide any statistical evidence showing that these benefits (e.g. decreased use of vasoactive drugs, quicker waking times etc) were correlated to the lower use of propofol in the dezocine group (e.g. by linear or logistic regression analysis?) This would strengthen the article considerably.

*Correlation analysis showed that awakening time ($r = 0.392$, $P < 0.001$) and Steward score ($r = -0.306$, $P < 0.001$) were correlated to total dosage of propofol.*

*Correlation analysis showed that Usage of vasoactive drugs was correlated to total dosage of propofol ($r = 0.204$, $P < 0.001$).*

Reviewer #2: This is an interesting randomized trial of four different modalities of anesthesia for colonoscopy and upper GI endoscopy, comparing addition of dezocine, fentanyl, sufentanyl and placebo to propofol anesthesia. It seems, that the study was well performed, having

power calculation and sufficient number of subjects included as well as pragmatic blinding. My main concern is that addition of opioid anlgetic medications to routine anesthesia is known to result in increased incidence of side effects - nausea and vomiting as well as increased risk of prolonged sedation. The follow-up of the study stops when the patient is discharged from the endoscopy suite and there is no follow-up data 1 day after procedure - were there any late side effects, readmissions and what are the patient reported outcomes - satisfaction of QOL data. Publication of the trial without knowing this data may lead to unproven conclusion that addition of dezocin is safer than propofol alone, and the study unfortunately does not provide the data for such a conclusion. If the trial is published, it should at least be incuded in the conclusion section.

*We collected the incidence of nausea and vomiting within a 24-hour period in the revised version of the manuscript.*