

Dear Lian-Sheng Ma,

Sincerest thanks for your response and reviewers' comments on our manuscript entitled "Global, regional, and national burden of gallbladder and biliary diseases in 204 countries and territories, 1990 to 2019: a systematic analysis for the Global Burden of Disease Study 2019". The manuscript has been carefully revised in response to the reviewers' comments and suggestions; point-by-point responses to their comments are listed below this letter. All amendments are highlighted by using track changes in the revised manuscript.

We would like to express our great appreciation to you and reviewers for comments on our paper.

We hope that our manuscript could be considered for publication in World Journal of Gastrointestinal Surgery. Thank you very much for your help.

Look forward to hearing from you soon.

With kindest wishes,

Yours sincerely,

Guoqing Ouyang, PhD

Department of General Surgery

Liuzhou People's Hospital affiliated to Guangxi Medical University

Liuzhou 545006

Guangxi

China

Tel: +86-18897725955

E-mail: ouyangguoqing@stu.gxmu.edu.cn

## **RESPONSE TO REVIEWERS AND EDITOR**

### **Reviewer #1:**

#### **Comment 1:**

1. First of all, I would like to congratulate the authors for the significant, interesting, and informative work, as well as for the volume of work, they have done concerning an epidemiological topic (changes in the global epidemiological parameters of biliary and gall bladder diseases) of great importance. Judging their work as a whole, I would like to emphasize that despite the inherent disadvantages of the study (some of them are also highlighted by the authors in the discussion part of the article), such as the accuracy of the data of the individual countries, and the accurate collection of the data (regarding mainly the final diagnoses), nevertheless the findings and the subsequent conclusions of the study are correct, logical and to a large extent expected. The discussion of the findings is sparse, but adequate and focused on the importance of the findings (concerning mainly the health planning of the individual countries). The tables and figures are informative and well-designed. In my opinion, the number and type (laparoscopic or open surgery) of surgical procedures performed, as well as the histological diagnoses of the removed tissues would have offered some additional information and conclusions. PS I would like to urge the authors to do the same work for inflammatory bowel disease as well.

#### **Our Response 1:**

First, we greatly appreciate the reviewer's positive feedback and encouragement regarding the significance and importance of our work on the epidemiological parameters of gallbladder and biliary diseases.

Furthermore, we are grateful for the reviewer's suggestion to include additional information such as the number and type of surgical procedures performed (laparoscopic or open surgery) and the histological diagnoses of the removed tissues. Indeed, these data would complement our findings and provide valuable insights. We incorporate this suggestion in our revised manuscript and provide a more comprehensive analysis to strengthen the robustness of our conclusions. We have added "Laparoscopic cholecystectomy (LC) is the gold standard procedure for the treatment of acute gallbladder diseases. However, nonsurgical management includes endoscopic ultrasound-guided gallbladder drainage (EUS-GBD) and percutaneous transhepatic gallbladder drainage (PT-GBD) was also a choice for the treatment of acute cholecystitis. However, in some low-SDI regions, they can only conduct open cholecystectomy and cannot performed less invasive LC, EUS-GBD, and PT-GBD due to limited medical resources, which may lead to higher prevalence and YLDs" in the revised discussion section.

We acknowledge the reviewer's interest in our work and their suggestion to explore similar epidemiological changes in inflammatory bowel disease. We agree that studying such a topic is crucial in understanding the broader trends in gastrointestinal diseases. While this particular manuscript focuses on biliary and gall bladder diseases, we plan to conduct research on inflammatory bowel disease in the future. We believe that by investigating various gastrointestinal conditions, we can contribute more comprehensively to public health and medical knowledge.

**Reviewer #2:**

It is an excellent manuscript but some revisions are necessary. In my opinion the supplement 1 is very confusing for the reader and too long while in supplement 2 if figures fig S1- figS4, figS6-figS8 would be omitted, it would have been more Understandable by the reader.

**Our Response:**

Thank you for your comments. The reviewer has noted that Supplement 1 is confusing and lengthy for the reader. We understand the importance of ensuring that all supplementary materials are presented in a clear and concise manner. However, the primary objective of our study was to present comprehensive data on the incidence, prevalence, and years lived with disability (YLDs) of gallbladder and biliary diseases across 204 countries. Achieving this aim necessitated the inclusion of extensive data, which contributes to the length of Supplement 1. Furthermore, we believe that the comprehensive nature of the data is crucial for providing a holistic understanding of the disease burden of biliary and gallbladder diseases on a global scale. By including data from 204 countries, we aim to offer insights into the variations and patterns of these diseases worldwide. This approach allows policymakers, healthcare practitioners, and researchers to make informed decisions and develop targeted interventions to address the specific needs of different countries.

In addition, we have omitted fig S1- figS4, figS6-figS8 as the reviewer's suggestion in revised Supplement 2.

**Reviewer #3:**

There is a recent publication with similar outcomes: <https://pubmed.ncbi.nlm.nih.gov/35430757/>

## **Our Response**

The study “Global burden of gallbladder and biliary diseases: A systematic analysis for the Global Burden of Disease Study 2019” was focus on the prevalence, death, and disability-adjusted life years (DALYs) rates. In addition to presenting global prevalence, death, and DALY rates, this study did not include an analysis of the incidence and years lived with disability (YLD) rates. Furthermore, it did not provide information on the regional and national burden. Moreover, the study only assessed the correlations between ASR and the sociodemographic index (SDI) and not between the number of events and the Human Development Index (HDI) and baseline ASR. In our study, we presented the incidence, prevalence, and YLDs of GABD and their temporal trends from 1990 to 2019 in 204 countries and territories at the global, regional, and national levels. The association between estimated annual percentage changes (EAPCs), age-standardized incidence rates (ASIRs), age-standardized prevalence rates (ASPRs), and age-standardized YLDs rates (ASYRs) (1990), and HDI (2021) were also assessed at the national level.