

ANSWERING REVIEWERS

December 9, 2014

Dear Editor,



Please find enclosed the edited manuscript in Word format (file name: 15091-review.doc).

Title: Weekly Patterns of Peptic Ulcers Emergency Room Admission: A Population-based Study

Author: Li-Ting Kao, Ming-Chieh Tsai, Heng-Ching Lin, Femi Pai, Cha-Ze Lee

Name of Journal: *World Journal of Gastroenterology*

ESPS Manuscript NO: 15091

The manuscript has been improved according to the suggestions of reviewers:

1 Format has been updated

2 Revision has been made according to the suggestions of the reviewer

(1) Reviewer 1 (#914743)

Evaluation: This manuscript by Li-Ting Kao et al. investigated the variations in PU incidence in Taiwan by day of the week within the subgroup defined by age. One-way ANOVA showed that there was a significant difference by the day of the week, with PU admission more likely to occur on Sundays or on holidays than weekdays within each age group. The patterns of weekday-wise variations were similar for the <65 and ≥ 65 age groups. Sundays and holidays had higher PU ER admissions, respectively, than the mean daily PU ER admissions. Based on these results, the authors concluded that there is a higher incidence of PU onset on weekends than on weekdays for the total and working population. In general, most parts of the manuscript are well written and still some points are listed below that should be taken into account: Major points:

1. The authors should list the clinical information or records of *H. pylori* infection and non-steroidal anti-inflammatory drugs (NSAIDs) in-take of the population and have a subgroup analysis or excluded from the study. For these two impact factors are important for young and old people who had PU.

Response: Thank you for your valuable suggestions. We have conducted subgroup analyses with information about *H. pylori* infection and intake of the non-steroidal anti-inflammatory drugs (NSAIDs). The results were showed in Table 3 and Table 4. We have revised the relevant statements and data throughout the whole manuscript. The statements in Results have been

revised as follows: "Furthermore, Table 3 presents the daily mean incidences of PU admitted to the ERs in patients who have been diagnosed with *H. pylori* infection. Only holidays had higher mean PU ER admissions than other non-holiday weekdays and weekends." (3rd paragraphs, page 12); "Daily mean incidences of PU admitted to ERs in patients who have been prescribed by NSAIDs for over 30 days are showed in Table 4. Sundays and holidays had higher mean PU ER admissions than other non-holiday weekdays." (4th paragraphs, page 12)

2. I agreed with the authr that the use of a nationwide population-based dataset, which has a single-payer system and covers 99.6% of the population (23 million) in Taiwan has little sample selection bias. And the authors have stated that a criticism is that the ERs are the only medical care sources available on Saturday afternoon. So, what the explanation of young work people have no time to see a doctor on workday if with no complications. Instead, weekend is ok.

Response: Thank you for your comments. We have added clear explanations in Discussion as follows: "Another criticism is that ERs are the only medical care sources available on Saturday afternoons, Sundays, and holidays. This may increase ER visits on such days. Nonetheless, ER admission is provided on all days of the week, even at night. Therefore, the working population could receive ER health service after getting off work." (2nd paragraphs, page 16)

3. The result is different from others for alcohol consumption, *H. pylori* infection or intake of the non-steroidal anti-inflammatory drugs (NSAIDs). So, how to have a subgroup analysis with detailed records is very important. That can increase the strengths of this study.

*Response: As suggested, we have conducted subgroup analyses with information about *H. pylori* infection and intake of the non-steroidal anti-inflammatory drugs (NSAIDs). The results were showed in Table 3 and Table 4. We have revised the relevant statements and data throughout the whole manuscript.*

However, the database which we used in this study did not have the records about alcohol consumption. The limitations have been previously written in the Discussion as follows: "However, some limitations should also be noted. First, there is no clinical information or records about cigarette smoking, alcohol consumption, and emotional stress, which may all be risk factors for PU onset." (1st paragraphs, page 16)

4. Minor points: The authors should add detailed Figure Legends into the manuscript.

Response: We have added detailed figure legends in Results. Thanks for your suggestions!

(2) Reviewer 2 (#1490498)

The authors publish findings of a large observational study on variations in admission with peptic ulcer disease in Taiwan. The results are interesting and add to the literature. The article is well written. Some comments:

1. I would suggest shortening the conclusions with more focus. Statements about role of stress, alcohol and smoking are purely speculative without any data being presented and should be toned down.

Response: Thank you for your comments. In order to shorten the conclusions with more focus, we have removed the statements about stress, alcohol and smoking which were speculative without data in Discussion.

2. It would have been interesting if data on any seasonal variation was available.

Response: Since many prior studies have explored seasonal variation in peptic ulcer incidences, their findings are all consistent. Therefore, this study did not attempt to investigate this association. Instead, we focused on weekly patterns of peptic ulcers emergency room admission. We are sorry for this!

3. A guide similar to the STROBE checklist for observational studies should be provided.

Response: As suggested, we have added the statement into the final paragraph of the Methods as follows: "This study was complied adhering to STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) guidelines^[20]." (2nd paragraphs, page 10)

(3) Reviewer 3 (#1490498)

Comments to the authors This manuscript by Kao, LT et al. reported a variation of the incidence of peptic ulcer (PU) by day of the week based of nationwide clinical database in Taiwan. This study topic is really revival, which was previously conducted several decades ago, but the information provided from this manuscript must attract readers of WJG. The occurrence of PU is greatly associated with the prevalence of H. pylori infection, living environment, and mental stress. The situation of these factors can dramatically vary across the ages. Therefore, this manuscript confers reasonable impact on daily clinical practice. This study design involves several limitations due to retrospective database-based study, but the authors well discussed on these matters in the manuscript.

Minor comment Lower income population is prone to be affected with PU than higher income population shown in Table 1. The authors are recommended to discuss it.

Response: Thank you for your comments. We have added relevant statements in Results as follows: " Moreover, the lowest income population (36.0%) was more prone to be affected with PU than the highest income population(18.1%). These results might be due to poor standards of hygiene, psychological stress, and health risk behaviors in the low socioeconomic status population^[21]." (1st paragraphs, page 11)

3 References and typesetting were corrected

Thank you again for publishing our manuscript in the *World Journal of Gastroenterology*.

Sincerely yours,



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