

The importance of sample size calculation in a retrospective study of recurrent and non-recurrent acute pancreatitis

Sir,

We have read with great interest the study by Song K. *et al.*^[1] where they determined the different clinical features between recurrent acute pancreatitis (RAP) and non-recurrent acute pancreatitis (non-RAP) in a tertiary hospital in China. We appreciate their effort, as the article provides valuable data on RAP and non-RAP with a five-year follow-up. However, we would like to point out some points that we consider important:

Firstly, it is apparent that the comparison of clinical characteristics between the RAP and non-RAP groups is not appropriate, due to the large difference in the sample size of each group; 262 patients were included in the RAP group and 1305 in the non-RAP group. For example, one of the results obtained by Song K. *et al.*^[1] is that the RAP group had a lower incidence of cholelithiasis, and acute liver damage compared to the non-RAP group, but it cannot be concluded whether this result is due to the type of RAP or to the difference in sample size.

The difference in sample sizes was analyzed using the Mann-Whitney test, which is used when the difference between two groups with freely distributed quantitative variables is to be determined.^[2,3] For the above reasons, it is recommended to compare two populations with similar numbers of members per group, in order to obtain results that are closer to reality in terms of their differences or similarities.

Secondly, the article made an unequal relationship between factors such as hypertriglyceridaemia (HTG), male sex, and diabetes that are related to RAP, but does not specify how much of a relationship they have with respect to non-RAP or if there is any. It is important to mention if there is a relationship between them, as it has been reported in several

studies that HTG shows a higher rate of complications and severity than other aetiologies. As for the male sex, the prevalence was 76% in RAP vs. 54% in non-RAP; and lastly, the prevalence of diabetes was 53% in RAP vs. 18% in non-RAP.^[4]

We are grateful to Song K. *et al.*^[1] for their significant work in summarizing the most salient factors in relation to RAP; however, this work would be more complete if the points we made were considered.

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Conflicts of interest

There are no conflicts of interest.

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