LETTER TO THE EDITOR

**Comment on Mohammad Hamid et al (J Pak Med Assoc. 67: 1019; 2017)**

# Incidence and pattern of Thrombocytopenia in cardiac surgery patients

Mehwish Hussain

The article aimed to report the incidence and pattern of thrombocytopenia in cardiac surgery patients using a cohort study. Going through the literature there were few points which author missed to follow or define.

The cohort study design is surely a prospective study design. However, in this study exposure and non-exposure are selected to look for the occurrence of disease. While your study worked with one group (cardiac surgery patients) and looked for thrombocytopenia. Accordingly, the study design, title and methodology were unmatched. Hence, results and conclusion became invalid.

Also, for cohort study design, sample size calculation must be given according to the standard methods which are defined in literature. Author should have given the power of the test, confidence interval, percentage of disease in exposure and non-exposure from any relevant previously cited study and adjustment of sample size for possible lost to follow-up.

Research Department, Dow University of Health Sciences, Karachi, Pakistan.
**Correspondence:** Email: mehvish.hussain28@gmail.com

Second, if we consider for instance that author incorrectly reported the study design and it was a case series where the author failed to show the time period of the case enrolled and observe the outcomes. The mentioning of 5 months study period and a graph of weekly observations are not satisfactory.

Besides, applications of ANOVA, Kruskal Wallis, chi-square etc. are not justifiable and appropriate for a prospective study design. Instead, paired sample t-test, repeated Measure ANOVA or trend analysis should have been performed to observe changes over time. In case of cohort study design, survival analysis is the best technique to answer and compare the incidence in the two groups of exposure.

How was the incidence calculated? This description was totally missed from methodology and results. In methodology, author should have defined time interval of the study since case enrolled and how the outcome was observed over specified period of time. In the results, authors should have defined how many new cases (of the disease) were obtained over the study time period.

Authors should have consulted experts in the field of epidemiology and biostatistics. These were the fundamental points to be considered at the design level of the study.