

Comments on Jahan et al (JPMA 70: 390-393; 2020)

Association of single nucleotide polymorphism of transforming growth factor β 1 (T29C) in breast cancer patients: A case control study in Rawalpindi

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Madam, with great interest, we meticulously read the recently published original article entitled, "Association of single nucleotide polymorphism of transforming growth factor β 1 (T29C) in breast cancer patients: a case control study in Rawalpindi" (JPMA 70: 390; 2020).¹ We must appreciate that the authors have probed one of the burgeoning health issues of Pakistan and addressed the link between transforming growth factor β 1 (T29C) polymorphism and risk of breast cancer. Based on the findings, authors concluded that the risk of breast cancer is statistically higher among women with CT or TT genotypes in contrast to women with CC genotype. However, we had concern regarding the statistical presentation of the research data, perhaps odds ratio (OR) in particular.

The authors clearly spelled in the Patients and Methods section of the study that the sample size was calculated by keeping 95% confidence interval (CI), including other parameters as well (not discussed here). However, authors never mentioned CI for the OR throughout the study. We certainly know that CI, from a sample statistic, projects the unknown underlying population parameter within the range of two values. In addition, CI is affected by sample size; the smaller the sample size, the wider the CI. This, in turn, suggests that the calculated estimates will be less reliable (low precision).² We are inquisitive that how much wide the CI of the calculated OR would be, given the small sample size of the

published study and whether the OR had overlapping 1 or not. There has been a study with small sample size that reported high OR of 3; however, with wider CI and overlapping 1, which suggested that the study findings were uncertain.³ Moreover, a total of four references were used in the Discussion section to support the study findings, of which two studies had significantly large sample size compared to their study. Merely the occurrence of a positive OR does not essentially specify that the association is significant and generalizable. The CI needs to be considered and even reported.⁴ Finally, authors did not mention the limitations of the study on which future research work could be framed or where indication of cautious interpretation of the study findings could be stated. We believe that the reporting of the study finding is insufficient and could be improved for better understanding of the scientific readers.

The OR must always be presented with CI as it gives readers an estimate to draw inferences for the underlying population. We would welcome the comments by the authors as it would further help us to understand the findings of this important research study.

Thanks.

References

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