

# Comment on “Association Between Serum Zinc Levels and Multiple Cutaneous Warts: A Cross-Sectional Study”

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## Dear Editor,

It is valuable to comment on the article titled “Association between serum zinc levels and multiple cutaneous warts: A cross-sectional study” which is published by Mani et al.<sup>1</sup> in the latest issue of your fabulous journal. Mani et al.<sup>1</sup> assessed in a case-control study the correlation between serum zinc levels (SZL) and multiple cutaneous warts. They found that compared with controls, patients had a significantly higher mean SZL ( $P = 0.0001$ ). The duration or the number of warts was not significantly correlated with SZL.<sup>1</sup> Due to the following methodological limitations, the study findings have to be questioned. In the study methodology, Mani et al.<sup>1</sup> estimated the SZL was estimated using Sigma-Aldrich Kit (Bangalore), and the normal range of SZL was regarded as 60-180 µg/dL. It is important to mention that serum zinc concentrations are influenced by numerous determinants, such as age, gender, time of venipuncture, fasting status, race, health status, anemia, and serum albumin concentration.<sup>2</sup> The tool employed in Mani et al.’s<sup>1</sup> study was not based on the aforementioned determinants of serum zinc estimation. Hopefully, reliable age and gender reference intervals (RI) for serum zinc were derived based on the US National Health and Nutrition Examination Surveys data. The calculated RI of SZL is 9.5-16.0 µmol/L (62.1-104.6 µg/dL) for children, 9.5-18.0 µmol/L (62.1-117.6 µg/dL) for adult males, and 9.5-16.5 µmol/L (62.1-107.8 µg/dL) for adult females. Following optimum sample collection protocols and assuring analytical

precision and accuracy, these RIs can be confidently shifted for routine use in other biochemistry laboratories with accepted analytical achievement in external quality assurance plans.<sup>3</sup> This indicates that these RIs perform accurately, produce comparable and reproducible results, and identify and correct errors to prevent negative outcomes or incorrect diagnoses. In fact, there are notable differences in the SZL between the aforementioned calculated RI of SZL<sup>3</sup> and that used in Mani et al.’s<sup>1</sup> study. To better disclose the association between SZL and cutaneous warts, we believe that referring to the estimated RI of SZL<sup>3</sup> in the study methodology is a sound option.

## Ethics

**Financial Disclosure:** The author declared that this study received no financial support.

## REFERENCES

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