Letter to Editor

Vancomycin-resistant *Staphylococcus aureus* (VRSA) from Nepal: a cocktail story

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Dear Editor,

The merit of a scientific writing is high only when it disseminates the new knowledge in a universally accepted and logical manner. I, with great interest, have read a paper entitled "Bacteriology and antimicrobial susceptibility of adult chronic dacryocystitis" by Chaudhary et al (2010). This paper of writing has raised few concerns after reading it and compelled me to bring the issues to the notice of the scientific community. The first issue concerns with the inappropriate way of citation and referencing observed in the paper. Accuracy of citation and referencing has been a questionable issue in Nepal (Adhikari, 2009). The authors (Chaudhary et al, 2010) have wrongly cited our paper (Dumre et al, 2008) in the discussion section for a misleading information regarding the vancomycin resistant *Staphylococcus aureus* (VRSA). The authors cited our work giving an impression that all the isolates we reported in our study were VRSA which information is totally wrong because we had reported only 5% as methillin resistant *S. aureus* (MRSA) and none of them were VRSA which is also clearly written in our abstract (Dumre et al, 2008). Moreover, the way of citation in the text is also wrong as they cited our paper as "Malla et al, 2008" which should be "Dumre et al, 2008". The list of references contains inaccurate order of authors. This brings about a doubt whether the authors really read the cited paper.

The second issue concerns with the very high rate of VRSA (>18% of total *S. aureus*) reported from Nepal (Chaudhary et al, 2010).The authors' attempt to address a critical health problem if appreciable. However, there are some methodological constraints and prompt discussions are equally essential so that the future researchers get right information in advance. As a general rule, with the increased rate of methicillin resistant *S. aureus* (MRSA) globally, it is mandatory to perform MRSA screening before VRSA testing, which the authors failed to describe in their work (Chaudhary et al, 2010). After the first report of clinical VRSA less than a decade ago (Chang et al, 2003), it has been a serious concern because of the reduced susceptibility of vancomycin-intermediate *S aureus* (VISA) and VRSA strains to vancomycin that leaves clinicians with very limited therapeutic options (CDC, 2010). *S aureus* isolates with the minimum inhibitory concentrations (MICs) of 4-8 µg/ml and 16 µg/ml or more are classified as VISA and VRSA respectively (CLSI, 2006). There are few reports of VRSA worldwide and recently from India with a rate of 0.0025 % among *S aureus* and 0.0011 % among coagulase negative staphylococci (CONS)

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while almost half of them being MRSA (Tiwari & Sen, 2006). Since the reported proportion of VRSA/VISA is very low worldwide, such a high rate of VRSA reported from Nepal (Chaudhary et al 2010) can be considered as an emergent situation, provided the reliability of the claimed Nepalese data. The authors have reported vancomycin resistance in *Staphylococcus* including VRSA based on the disc diffusion results only with no MIC confirmation (Chaudhary et al, 2010), however several studies show that the zone diameter breakpoint (>=15 mm) is unreliable for detecting VISA strains (CDC, 2010). Laboratories using diffusion technique for vancomycin should consider an additional method for VISA detection such as the vancomycin screen plate to techneque (MIC = 8 µg/ml) for which the testing algorithm is also available, although the most reliable detection of VISA (MIC = 4 µg/ml) may require a non-automated MIC method (CDC, 2010).

To conclude this "cocktail story" of two different issues on citation errors and laboratory based methodological constraints, it is the authors' responsibility to make scientific communication error free and reliable in the sense of both doing and writing. While reporting critical findings, adequate confirmations are essential to keep the investigators on safe-side or they should be reported with cautions in light of existing constraints. Nevertheless, the authors deserve thanks for their efforts on VRSA in Nepal since this work has raised an issue and made the concerned authority of Nepal alert towards an urgent need for testing algorithm including determination of vancomycin MIC of *S aureus*, VISA/VRSA reporting policy, treatment guidelines and surveillance programs in a broader approach.

Key words: Vancomycin resistant *Staphylococcus aureus*, Nepal

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