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Identification of SARS-CoV-2 in post-mortem nasopharyngeal swabs



Dear Editor, we would like to share the ideas on “Forensic evaluation of two nucleic acid extraction systems and validation of a RT-qPCR protocol for identification of SARS-CoV-2 in post-mortem nasopharyngeal swabs [1].” Barrio et al. concluded that “Both the automated and the manual RNA extraction procedures showed good efficiency, but the automated virus extraction by bio-robot produced more reproducible results than the manual extraction [1].” Generally, a robotic RNA purification protocol usually has a better threshold for detection of RNA of virus [2]. However, there are still many considerations on automated extraction. In general, the automatic extraction has to be based on commercial kit. The commercial RNA extraction kits may be insufficient when there is a large demand during outbreak [3]. Additionally, comparing to manual approach, there are problems of in-valid rate and problem of negative agreement of automatic approach [4]. Barrio et al. mentioned for cross reactivity study but there is no specific study on cross reactivity to other viruses [1]. In a complete assessment of an automated extraction approach, it is necessary to perform a specific assessment on many respiratory viruses. In a recent report, Li et al. reported a similar evaluation with a complete cross reactivity analysis was performed in 20 other respiratory viruses [5]. Additionally, the reproducibility is also associated with stability. The effect of transport media on stability of virus should be mentioned [6]. Using of a lysis buffer supplemented with nucleic acid stabilization mix can also help extend stability [7]. To conclude on the stability property of new automated extraction should recognize the effect of transportation and specimen preparation.

Author statement

Both authors have equal contribution is idea giving, drafting, writing revising and approving for submission.

Conflict of interest

None.

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