

Capillary versus Venous Blood Glucose in Patients with Coma

Dear Sir,

The recent publication on “comparison of capillary and venous blood glucose levels using glucometer and laboratory blood glucose level in poisoned patients being in coma” is very interesting.^[1] Yaraghi *et al.* concluded that “capillary blood glucose measurement by using glucometer is not recommended for patients in coma.”^[1] In fact, there are many previous comparative studies between blood glucose measurement from capillary and venous blood samples. For sure, it is no doubt that the results cannot be the same. Nevertheless, there are several attempts to adjust the derived laboratory values. For example, Balaji *et al.* recently performed a comparative study between blood glucose measurement from capillary and venous blood samples for the diagnosis of gestational diabetes mellitus and proposed for new cut-off value for interpretation of capillary blood glucose results.^[2] In the present scenario proposed by Yaraghi *et al.*, the coma is actually a critical condition. The rapid management is needed and the turnaround time for a laboratory test is the big issue. The use of capillary blood glucose measurement as point-of-care testing is the concept to correspond to the urgent need of laboratory results. The point-of-care glucose (POCG) testing is still considered useful. However, the problem of error can be expected. As proposed by Schiffman *et al.*, “Preanalytic factors associated with sampling capillary blood” is a big issue that the practitioner needs to concern.^[3] If there is a good control, the difference can be little.^[4] For the critical situation, the primary result from POCG might be used for patient management, and retesting to confirm critical results should also be parallel done.^[3] Finally, it should be also noted that if there is no good quality management, the preanalytical error can be seen either in glucose measurement by capillary or in venous blood samples.^[5]

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Conflicts of interest

There are no conflicts of interest.

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