Sir,

Diabetes mellitus (DM) is a chronic and complicated metabolic disease which requires constant medical care.\(^1\) It is one of the most common metabolic diseases and there are 542,000 children with type 1 DM in the world.\(^2\)

Capillary blood glucose measurement is a simple test giving fast results, especially when monitoring hypoglycemia and hyperglycemia in patients with DM (type 1 DM, gestational DM, type 2 DM) for the follow-ups of DM complications. Children are not like adults; they gain the ability of self-measurement of blood glucose as soon as they become mature enough between the ages of 7 - 11 years. The children should be given responsibility according to their developmental milestones and be trained as well as their families on what to pay attention to.

Self-monitoring of blood glucose enables the patient to decide on some routines individually, such as exercising, eating and calculating the dose of insulin. It reduces the frequency and length of hospitalisation and it is a simple and modern method since it also reduces the expenses of monitoring and treatment of diabetes.

Skin cleansing has particular importance for the preparation of blood glucose measurement; hands should be washed with water and soap, wiped with alcohol wet tissue or, cleansed with 70% alcohol. There are studies conducted on the effects of glucose measurement after exposure to fruits and other environmental exposure.\(^3\)

It was found that the first blood taken after exposure to fruits and without cleansing of hands had higher levels of glucose, so it is recommended that after cleansing the hands with alcohol, the first blood should be wiped off and the second blood should be used for measurement.\(^3\)

The alcohol wipes cannot maintain sufficient cleansing, they cause thickening of skin in pediatric patients and pain in finger tips and result in high level of blood glucose, which make this method unfavourable.\(^3\)

World Health Organization (WHO) does not suggest the use of povidone-iodine during capillary blood draw, but taking the second drop of blood after cleansing the region with alcohol and waiting it to dry up in case the first blood might be contaminated with alcohol.\(^4\)

As a result, when measuring the blood glucose in children, it is recommended that the first blood drop be used after making sure that hands are washed with water and soap and completely dried up. However, if it is not possible to wash hands, it is suggested that hands are cleansed with 70% alcohol, the first blood drop is wiped off and the second drop is used. Skin cleansing affects the blood glucose value while measuring blood glucose.\(^3\) Unless the skin is cleaned carefully, the results may be misleading. Thus, the management of diabetes may be more complicated. Therefore, children with diabetes, and their families should be informed about this subject.

REFERENCES


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