Brief Communications

Hypoglycemia in diabetics during Hajj

Sarosh A. Khan, *MBBS, MD,* ***Abdul R. Bhat,*** *MD,*
Latif A. Khan, *MD, MRCP(UK).*

Hypoglycemia in diabetics is more common than appreciated.[1] It is common in diabetics on insulin. At least one-third of insulin treated patients suffer an episode severe enough to cause loss of consciousness at some time, 10% have such a coma annually, and at some stage 3% suffer recurrent attacks so frequently as to be incapacitating.[2] After working in the Emergency Department of Ajiad Hospital, King Faisal Hospital, Mecca, hospitals in Mina as well as various dispensaries throughout the Kingdom of Saudi Arabia (KSA), we encountered many such cases in the last few years. Of importance were the unusual causes which led to these episodes in diabetic patients. They were as follows: Most of the diabetics from Egypt including some from Syria and India injected insulin by the milliliter (ml). For example by injecting half ml twice a day or 3 times a day. They had no idea at all regarding concentration per ml of insulin. This was exactly the reason as their hypoglycemia. Insulin available in India and other places for example has 40 units per ml, whereas insulin in KSA (the Humulin varieties by Eli Lily) has 100 units per ml. When their stock of insulin which they carried along from their countries exhausts, they buy insulin from here and inject by the ml rather than units. Hypoglycemia is thus the obvious results. Poor education and lack of proper guidance by doctors are the probable causes. We saw many patients from South Africa and India on regular insulin alone. One of our patients was on a dose as high as 55 units twice a day. Many were on 3 times a day regular insulin. These patients were not on any intermediate or long acting insulin. The treating physicians fearing possibility of much highlighted diabetic ketoacidosis during Hajj, might have aimed for tight control and this was the likely responsible factor. Meticulous control is known to produce more hypoglycemic episodes under stressful circumstances.[3] Thus many of the patients came to us in a hypoglycemic coma. Diabetics are usually advised to take insulin 30 minutes before breakfast or other meals. This may help in preventing early post prandial hyperglycemia.[4] However, this bit of advice may not be judicious under circumstances like those that prevail during Hajj. Patients are away from home, most of them are old, and attention to eating is less or delayed especially at times of prayer. Thus many landed in hypoglycemia due to delay in taking food within half an hour or so after injecting insulin.

Recently we highlighted the dangers of hypoglycemia which can be fatal while treating diabetic ketoacidosis during Hajj with an insulin drip instead of an infusion pump.[5] Some diabetics had hypoglycemic episodes and there was no apparent cause. It is likely that the dose which was optimal during a sedentary life proved excessive during the Hajj period which certainly involves moderate to severe exertion. We believe diabetic patients should be better guided for Hajj and the physical exertion it involves.[6] Also all diabetics and their attendants must be given education with regards to hypoglycemia, its symptoms and the measures to be taken immediately. Tight glycemic control should not be attempted. Moreover we recommend keeping the blood glucose level on the hyperglycemic side for the period of Hajj as a short duration of hyperglycemia is not as dangerous as one single episode of hypoglycemia.

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From the Department of Medicine, Najran General Hospital, Najran, Kingdom of Saudi Arabia. Address correspondence and reprint requests to Dr. Sarosh A. Khan, PO Box 5073, Najran, Kingdom of Saudi Arabia. Tel. +966 (7) 5424648. Fax. +966 (7) 5421932. E-mail: saroshahmed@yahoo.com

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