Full Neurological Recovery after Extreme Hypoglycemia during Intensive Insulin Therapy: A Case Report

Veerle M. Piot, M.D.,1 Anton Verrijcken, M.D.,2 Marc Vanhoof, M.D.,3 Ilse Mertens, M.D.,3 and Filiep Soetens, M.D.3

Abstract

Since 2000, there has been an ongoing debate regarding tightness of glycemic control in critically ill patients. An increased risk of hypoglycemia is observed in patients treated with an intensive insulin protocol targeting “normoglycemia,” probably accounting for a reduction of the overall benefit. Hypoglycemia is associated with neurological side effects and is found to be an independent predictor of mortality in most trials; however, long-term sequelae are rare if glucose is administered early. We describe a case of prolonged, extreme hypoglycemia in a critically ill patient treated according to an intensive insulin protocol who recovered without any neurological deficit at discharge.


Author Affiliations: 1Department of Anesthesiology and Intensive Care, Catharina Ziekenhuis, Eindhoven, The Netherlands; 2Intensive Care Unit, ZNA Stuivenberg, Antwerp, Belgium; and 3Intensive Care Unit, AZ Turnhout, Turnhout, Belgium

Abbreviations: (CT) computed tomography

Keywords: continuous glucose monitoring system, critical illness, hypoglycemia, iatrogenic disease, insulin

Corresponding Author: Veerle M. Piot, M.D., Department of Anesthesiology and Intensive Care, Catharina Ziekenhuis, Michelangelsolaan 2, 5623 EJ Eindhoven, The Netherlands; email address Veerle_Piot@hotmail.com