

中文題目：致命的低血糖心律不整

英文題目：Hypoglycemia related life-threatening arrhythmia

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Background

Hypoglycemia is a common side effect in patients with diabetes mellitus, especially when patients are under strict glycemic control or renal impairment. There are associations between hypoglycemia and cardiovascular morbidity. The potential etiology is hypoglycemia related cardiac arrhythmia which may predispose to sudden cardiac death. Thus, hypoglycemia could be life-threatening and should be avoided.

Case presentation

A 60-year-old man with history of type 2 DM, CKD stage IV and recurrent urinary tract infection was sent to our ER due to tremor followed with sudden conscious change. Hypoglycemia was noted (28mg/dl) by finger stick initially.

As the patient's mother (his 80-year-old mother) stated, he was just prescribed with insulin glargine (Toujeo®) 10 units HS one week ago due to poor blood sugar control. However, because all the family members were not familiar with the insulin injection procedure, he might get excessive doses of insulin in this period.

Further biochemistry examination revealed blood glucose 3 mg/dL, poor renal function(Cr: 7.0mg/dl) with hyperkalemia(K: 6.8 mEq/L). Venous blood gas reported metabolic acidosis. Throughout the hospitalization course, his electrocardiography (ECG) showed unusual but reversible variations which were highly related to hypoglycemia. The patient had an EKG taken while in hospital showing a corrected QT (QTc) interval of 588. After serum sugar correction, EKG showing corrected QT (QTc) interval of 400.

Conclusion

Although hypoglycemia is a common problem, it is treated immediately with glucose supplement. In this setting, we seldom met hypoglycemia related arrhythmia in our clinical practice. This time, we presented such a such challenging ECG recording, and hope clinicians be familiar with such complication.

關鍵字：低血糖，心律不整，心血管疾病

Key words: hypoglycemia, arrhythmia, cardiovascular morbidity