

Pseudohyperkalemia: in vitro phenomenon or misdiagnosis. A case report

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ABSTRACT

Introduction: Hyperkalemia is a common electrolyte disturbance that occurs within many patients. The more often prevalence of cardiovascular or renal diseases is, the more frequent medical issue hyperkalemia will be. An increasing quantity of entities requires taking medications that affect electrolyte hemostasis. Therefore, reasons for hyperkalemia should be deeply reflected. One of them is pseudohyperkalemia.

Purpose: In this study diagnostics and treatment of hypokalemia were presented based on the case report of a 56-year-old man.

Case presentation: A 56-year-old man was admitted to the Department of Invasive Cardiology of Medical Hospital of Białystok for complaints of strong chest pain associated with palpitations, cold sweats, feelings of general weakness and anxiety. The patient had no medical history of chronic diseases and neglected to take any medications at length. The laboratory tests performed at admission showed an increased serum

concentration of potassium. Through the whole hospitalization, many medications were implicated to overcome hyperkalemia (diuretics, calcium resonium, inhalation with beta2-adrenergic agonists, intravenous infusion of glucose with insulin) with no effect. Hormone test was performed, the results excluded Addison's or pituitary disease. Differential diagnosis with arterial blood draw showed normal potassium serum concentration.

Conclusions: Hyperkalemia is encountered in a broad spectrum of patients. The severely elevated level of potassium could lead to life-threatening conditions. Therefore, proper diagnosis making process is a matter of great importance. As clinicians, we need to base not only on laboratory but also examine the whole picture of the patient. Misdiagnosing pseudohyperkalemia might result in unnecessary medical management.

Keywords: Hyperkalemia, pseudohyperkalemia, electrolyte disorders

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