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A Case of Digoxin Intoxication in an Elderly Patient

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Abstract: Nausea is the feeling of wanting to vomit and may or may not be followed by vomiting. It is a one of common complaints for elderly people. At the other side, digoxin isn't one of the first-choice drug treatment of heart failure today but it is still widely used in the practice. digoxin toxicity continues to be a problem because of this. Hypomagnesemia may precipitate or aggregate the digoxin intoxication.
Keywords: Nausea, hypomagnesemia, digoxin intoxication, heart failure

INTRODUCTION

Nausea is a one of common complaints for elderly people. It has a broad spectrum of differantial diagnosis[1]. At the other side, digoxin isn't one of the first-choice drug treatment of heart failure today but it is still used by some doctors in the front line[2]. Hypomagnesemia is a particularly common electrolyte disorder especially in diabetic patients. Hypomagnesemia may precipitate or aggregate the digoxin intoxication[3]. We present here a case of digoxin intoxication who was admitted with nausea.

CASE REPORT

76-year-old male patient was admitted to the Internal Medicine Clinic because of nausea. He had history of hypertension, chroinc obstructive pulmonary disease, diabetes mellitus and heart failure. Two months ago, he had admitted an outpatient clinic for exhaustion. Digoxin 0.25 mg had been initiated for heart failure. But two weeks later after digoxin treatment, progressive nausea had been emerged and his oral intake was reduced because of this. On physical examination, vital signs were stable and there were no signs of heart failure. On laboratory creatinine: 1.32 mg/dl, urea: 46 mg/dL, potassium 4.6 mg/dL, magnesium: 1.5 mg/dL (1.8–2.6), Calcium: 8.83 mg/ dL and Pro BNP 890 pg/nl (0–400) were detected respectively. ECG was in sinus rhythm and sagging sign was observed. Although the patient had not been taking digoxin for two days, blood digoxin level detected 2.15 nanogram/mL. After discontinuation of treatment with digoxin and repletion of magnesium, his admission complaint disappeared completely. On the echocardiography, the patient's ejection fraction was% 40 and heart failure therapy was edited with valsartan and carvedilol. In the following days, patient discharged and outpatient control was suggested.

CONCLUSION

Nausea is a common complaint for patients of all ages. For nausea evaluation, it is important to take full-drug history especially in the elderly patient group[1]. Digoxin is a drug with a narrow margin of safety[4]. For heart failure, the recommended range for the serum digoxin concentration has been reduced over the past decade from 0.8–2.0 nanogram/mL to 0.5–0.9 nanogram/mL[5]. Several factors may increase the plasma level of the drug. It can be detected even when the serum digoxin concentration is within the therapeutic range[4]. Nausea is also one of the first signs of digoxin intoxication[4]. In the evaluation of patients with suspected digoxin intoxication, electrolyte disturbances must be considered because it is the most precipitating factor for digoxin intoxication.

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