

Ventricular fibrillation associated with occult eating disorder — a clinical puzzle

Migotanie komór związane z zaburzeniami odżywiania — zagadka kliniczna

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Abstract

Eating disorders are not infrequent in adolescents, and associated cardiac arrhythmias (CA) are well described in these patients. However, CA in adult eating disorders have been reported only rarely. We report a case of ventricular fibrillation in a patient presenting with fatigue and a recent history of vomiting.

Key words: ventricular fibrillation, eating disorders

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INTRODUCTION

Eating disorders are not infrequent in adolescents, and associated cardiac arrhythmias (CA) are well described in these patients. However, CA in adult eating disorders have been reported only rarely. We report a case of ventricular fibrillation (VF) in a patient presenting with fatigue and a recent history of vomiting.

CASE REPORT

A 49 year-old female was brought to the emergency room because of excessive fatigue of two weeks' duration. She had been in good health two weeks previously, but developed sudden excessive vomiting without diarrhoea. There was no significant history of travel or contact with sick patients. On admission, her temperature was 97.4 degrees F, blood pressure 100/56 mm Hg, pulse 124/min, respiratory rate 20/min. The patient was dehydrated. Laboratory tests revealed serum potassium was 2.2 mmol/L, calcium was 11.2 mg/dL, albumin was 4.0 g/dL, glucose was 233 mg/dL, phosphorus was 1.8 mg/dL, and magnesium was 2.5 mg/dL. It was noted that the patient rarely made eye contact during the admission. The initial 12-lead electrocardiogram revealed normal sinus

rhythm and a prolonged corrected QT interval at 617 ms. Her urine toxicology screen was negative. A computed tomography scan of the brain was normal. She was admitted for IV hydration and correction of electrolytes. Several hours later, she developed runs of ventricular tachycardia followed by VF (Fig. 1), and was treated with amiodarone and continued electrolyte correction. The patient maintained sinus rhythm thereafter.

Due to the patient's withdrawn behaviour, a psychiatric evaluation was requested. This confirmed major depression with recurrence of her eating disorder (a diagnosis of bulimia nervosa in its purgative form had been made 30 years earlier). On admission, her body mass index (BMI) was 14.9 kg/m². Self-induced vomiting was an additional manifestation of her eating disorder.

DISCUSSION

Sinus bradycardia is the commonest arrhythmia observed in patients with anorexia nervosa. It is presumed to be secondary to increased vagal tone or decreased serum triiodothyronine levels due to malnutrition [1]. Other electrocardiogram abnormalities are QT interval prolongation and QT disper-

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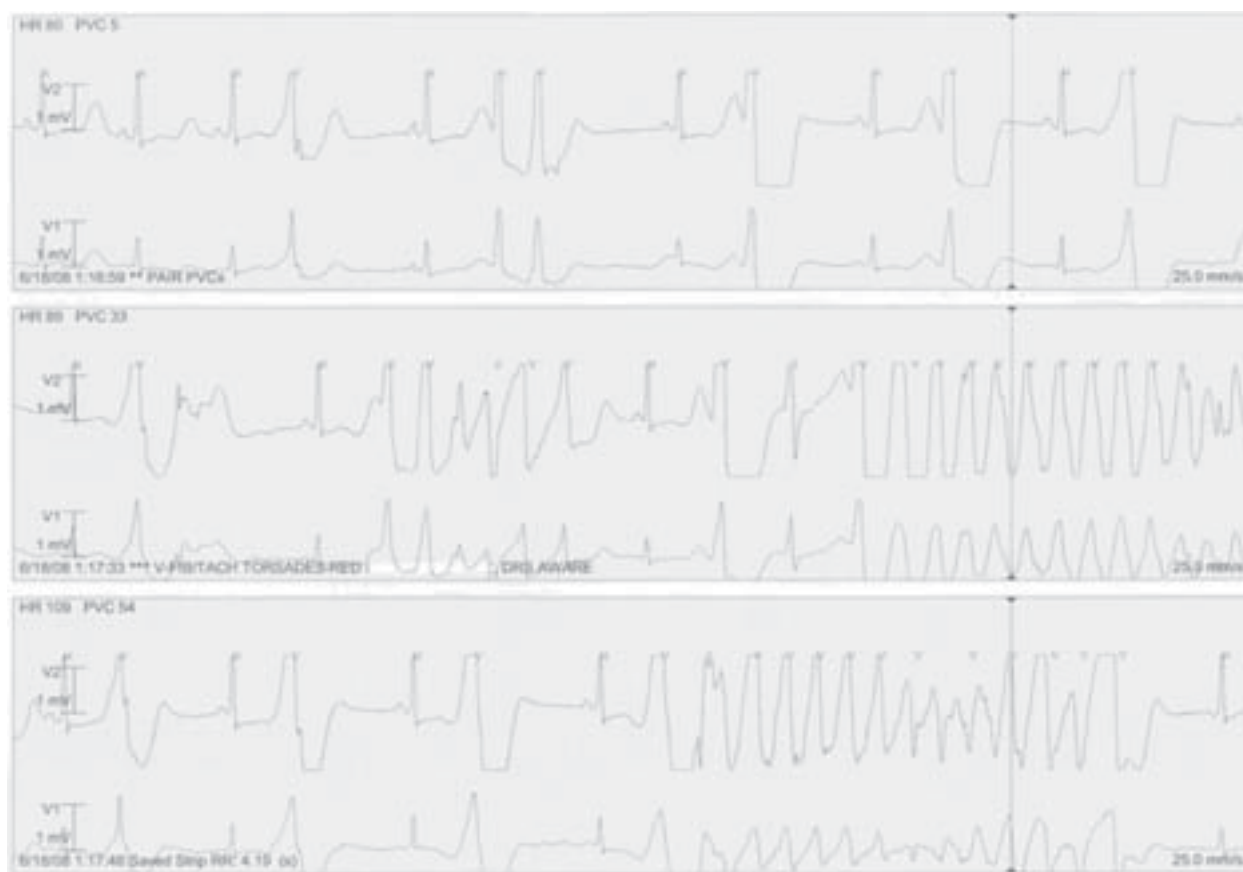


Figure 1. Telemetry revealing ventricular arrhythmias

sion [2]. Electrolyte abnormalities were an inconsistent finding in these patients [1–3]. It has been shown that prolonged QT interval prolongation is not a typical feature of anorexia nervosa and is weakly associated with serum potassium levels when present [3]. There is an association between long QT interval and sudden death in patients with eating disorders [2, 4].

This case illustrates the potentially life-threatening outcomes of eating disorders, particularly in adults, in whom it is rarely considered. No definite cause for these arrhythmias has been established, as hypokalemia is not always present. This case serves as a reminder that adult patients with electrolyte abnormalities and low BMI warrant a low

threshold for close cardiac monitoring and evaluation for eating disorders.

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